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The NATIONAL BANKING REVIEW

A JOURNAL OF POLICY AND PRACTICE

Articles on

- Bank Formation and the Public Interest
- The FOMC and the Patman Hearings
- Growth and Performance of Trust Funds
- Corporate Insider Trading
- Compensating Balance Requirements
- Commercial Bank Charges
- Default of International Public Debts

- Comment and Rejoinder
- Legal and Regulatory Developments
- Selected Statistical Data
- Book Reviews

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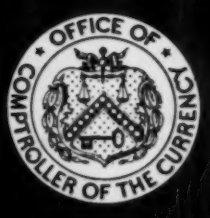

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The NATIONAL BANKING REVIEW

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Edited by the Senior Staff of the Department of Banking and Economic Research, Office of the Comptroller of the Currency.

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Contents

Bank Formation and the Public Interest	*David C. Motter*	299
The Open Market Committee Decision Process and the 1964 Patman Hearings	*William P. Yohe*	351
Growth and Performance of Common Trust Funds in 1964	*Stanley Silverberg*	363
Corporate Insider Trading in the Stock Market, 1957-1961	*Hsin-Kwang Wu*	373
Compensating Balance Requirements	*William E. Gibson*	387
Commercial Bank Charges in New York and Ontario	*Allen F. Jung*	397
Default of International Public Debts	*Wilson E. Schmidt*	403

The Benefits and Costs of Being the World Banker: A Comment	*Robert Z. Aliber*	409
Does it Necessarily Cost Anything to be the "World Banker"?	*Henry N. Goldstein*	411
The Benefits and Costs of Being the World Banker: Reply	*Herbert G. Grubel*	416
The Impact of Bank Entry on Market Conditions in the Equipment Leasing Industry: Comment	*Richard S. Bower*	419
The Impact of Bank Entry on Market Conditions in the Equipment Leasing Industry: Reply and Correction	*Eugene F. Brigham*	421
Current Legal and Regulatory Developments	*Roman J. Gerber*	425
Selected Statistical Data		441
Book Reviews		449

Karl Brunner, Mordecai Feinberg, Mark B. Schupack

►DAVID C. MOTTER

This article presents the results of a performance study of the new national banks chartered in 1962.

Bank Formation and the Public Interest

I. *Introduction*

The recent increase in the number of newly-established commercial banks has focussed attention on these banks and on public policies related to bank chartering. The purposes of this study are fourfold: (1) to examine the basis for public controls over bank formation; (2) to describe the situation faced by new banks generally; (3) to examine the operating results of a specific group of new banks; and (4) to make a preliminary assessment of the impact of these banks on the public and the banking industry.

David C. Motter is a Senior Economist, Department of Banking and Economic Research, Office of the Comptroller of the Currency. The author wishes to acknowledge the help of a number of people in the gathering and processing of data for this study. These include Patricia Maliar, Priscilla Ormsby, and John R. Hanson.

In Part II, public controls over bank formation are described and the bases for such controls are evaluated. In Part III, a profile of the characteristics of the 64 national banks chartered during 1962 is presented, and the market structures faced by these banks upon entry are analyzed.

Part IV presents a discussion of the problems confronted by new banks in establishing themselves, and the methods and devices used to overcome these problems. The relationships between new banks and their major correspondent banks are discussed, as are those between new banks and associated banks.

A description and analysis of the overall operating results of the national banks chartered in 1962 is contained in Part V. Part VI compares results among various subgroups of these banks. Part VII ex-

amines the performance of the 1962 group of new banks from the standpoint of bank customers. Conclusions are summarized in Part VIII.

II. *Public Controls Over Bank Entry*

In non-regulated industries, the height of barriers to entry is determined by various economic factors, notably the existence of economies of scale in production, product differentiation in marketing, and absolute cost differentials stemming from unequal access to necessary inputs.[1] Prospective entrepreneurs weigh the probability of profitable operations against the cost of scaling the barriers to entry, and then are free to follow the dictates of their judgment. In banking, however, an absolute legal barrier to entry exists unless, and until, a public authority grants a bank charter.[2]

A. The Statutory Basis of Entry Controls

Since the passage of the Banking Act of 1935, Federal banking authorities have been required to consider the following factors before a newly-organized commercial bank could be covered by deposit insurance:

> The financial history and condition of the bank, the adequacy of its capital structure, its future earnings prospects, the general character of its management, the convenience and needs of the community to be served by the bank, and whether or not its corporate powers are consistent with the purposes of this Act.[3]

In connection with the "adequacy of capital" factor, minimum capital requirements are imposed by statute for national banks.[4] Most states also impose such re-

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[1] See Joe S. Bain, *Barriers to New Competition*, Cambridge: Harvard University Press, 1956, for a thorough treatment of the condition of entry into manufacturing. See Bernard Shull and Paul M. Horvitz, "Branch Banking and the Structure of Competition," *The National Banking Review*, 1, March 1964, pp. 305-310, for a discussion of the degree of relevance for banking of these economic entry barriers.

[2] The Comptroller of the Currency exercises sole chartering authority for national banks. Each of the 50 states exercises chartering authority for state banks operating within its borders. Comptroller Saxon presented a detailed statement to the House Banking and Currency Committee in 1963 which described the "Procedures Followed by the Office of the Comptroller of the Currency in the Investigation and Screening of all Applications to Organize a National Bank." Committee on Banking and Currency, House of Representatives, *Conflict of Federal and State Bank Laws*, Hearings, 88th Congress, Washington: U.S. G.P.O., 1963, pp. 303-306.

Bank chartering authorities do not initiate proposals for new banks. Rather, the authorities react to and act upon charter applications presented to them by groups of private citizens who signify their desire to organize and invest in a new bank. Most chartering authorities require the applicants to supply a very considerable body of specific information which is relevant to an evaluation of the new bank proposal.

In this paper, public controls over entry via *branching* are not discussed. However, *de novo* bank entry and *de novo* branch entry are on occasion the alternatives facing the regulatory authority. For a treatment of branch entry, see David C. Motter and Deane Carson, "Bank Entry and the Public Interest," *The National Banking Review*, 1, June 1964, and Shull and Horvitz, *op. cit.*

[3] P.L. 305, 74th Cong., 1st Sess., Section 12B, Federal Reserve Act, Sub-section (g), 49 Stat. 684, 688. The Comptroller of the Currency and the Board of Governors of the Federal Reserve System must certify, for newly-organized national banks and newly-organized state member banks, respectively, that these factors have been considered. The Board of Directors of the Federal Deposit Insurance Corporation must consider these same factors in connection with newly-organized state non-member banks.

[4] 12 U.S.C. 51 (R.S. 5138). The current statutory minima are as follows: $200,000 for banks located in cities with a population of 50,000 or over, with certain exceptions; $100,000 elsewhere, except in "places" with a population not exceeding 6,000, where the minimum is $50,000. The effective minima imposed by the Comptroller to secure "adequacy of capital" tend to be considerably higher. See Table 6.

quirements for state-chartered banks.

Various additional statutory requirements exist relating to the organization of a national bank, such as the terms of the organization certificate, residence and citizenship requirements for directors, and minimum stock holdings of directors.[5] These latter requirements do not represent significant entry barriers.[6]

B. The Controversy Over Entry Controls and Their Application

The most obvious, but also the most important, direct result of the exercise of public controls over bank entry is the existence of fewer banks than would be present in the absence of such controls.[7] The number of new banks established under entry controls will vary with the philosophy of regulation held by the chartering authorities.

A dichotomy has emerged in the criticisms directed against the chartering policies of the regulatory authorities. Economists who are primarily concerned with the strengthening of competition in banking markets view with suspicion any restrictions on the free flow of resources. They direct their fire either at what they hold to be an overly-restrictive implementation of the entry controls, or at their very existence.[8] Officers of existing banks, on the other hand, are at times critical of what they hold to be an overly-liberal chartering policy by the regulatory authorities. It is clear that no chartering policy will satisfy both groups of critics.

Since *public* controls are involved, the relevant question is whether the *public* interest is best served by subjecting charter applications to a screening process the net result of which is a reduction in the number of new banks which otherwise would be established.

In answering this question, it is useful to divide the criteria applied to charter applications into two categories. One category relates, directly or indirectly, to the "*need*" for a new bank: its "future earnings prospects," the effect on existing banks, and the "adequacy" of existing banking facilities and services. The other relates to the "*worthiness*" of the application: "the adequacy of its capital structure" and "the general character of its management." The last-named criterion is many-faceted: it includes the financial record, net worth, banking affiliations, and general community standing of the individual organizers and proposed directors, their method of financing purchases of the new bank's stock, the banking experience and general ability of the proposed management,[9] and any indications that the application is grounded in private purposes inimical to the public interest.

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[5] 12 U.S.C. 22 (R.S. 5134) and 12 U.S.C. 72 (R.S. 5146).

[6] Failure by some or most of the organizers to reside in or near the community where a proposed bank would operate, is likely to be considered an unfavorable factor for an application. Non-residence may be prima facie evidence of a lack of familiarity with and concern for a community's banking needs. Such an interpretation is not directly related to the broader statutory residence requirement.

[7] For example, in 1964 the Comptroller of the Currency rejected 242 charter applications while giving preliminary approval to 185. (See Table 2). Peltzman estimates that in the period 1936-1962, "the average level of the rate of entry would have been 50 to over 100 percent greater than the average rate actually observed . . . in the absence of these [public] restrictions." See Sam Peltzman, "Entry in Commercial Banking," unpublished dissertation, University of Chicago, 1965, Mimeo., p. 108.

[8] See David A. Alhadeff, "A Reconsideration of Restrictions on Bank Entry," *Quarterly Journal of Economics*, May 1962, pp. 246-263, for a critique of entry controls and their implementation.

[9] It is quite common for preliminary approval to be granted before management is selected. In such cases, the approval is conditional, subject to later approval by the regulatory authority of the management chosen.

The screening of charter applications for "worthiness" in the sense here defined is accepted as necessary, even by observers who are quite critical of the "need" criterion. The following statement by Professor Alhadeff illustrates this point:

> The public interest would suffer as a result of entry by ill-conceived, unsound, or fraudulent banks, but the need barrier is not sufficient nor even necessary to prevent these abuses. . . . [The regulatory authorities] seek to prevent abuses directly by enforcing many regulations which are inspired by the public-trust nature of banking. For example, to prevent entry by persons who might ignore this public trust, they carefully evaluate the background, character, and competence of the organizers and prospective management; to enhance the safety of the bank and to protect depositors, they set minimum capital requirements. . . . Regardless of the entry conditions, direct regulation of this sort is necessary to provide effective protection.[10]

The "worthiness" test reduces the likelihood that the public will face the inconvenience or loss entailed in dealing with an unstable bank which may offer incompetent or inadequate service, and which may be subject to heavy losses or even failure due to mismanagement or misappropriation of funds.[11] Of course, even the most conscientious application of this test cannot eliminate the possibility of these adverse occurrences.

The "needs" test relates to the "future earnings prospects" of the new bank, the effect on existing banks, and the "adequacy" of existing banking facilities and services. However, the "adequacy" criterion may best be viewed as a subsidiary of projected future results of the new bank and the existing banks. It is difficult, if not impossible, to establish objective standards by which to measure "adequacy," especially when the availability, quality and breadth of *services* as well as the existence of *facilities* is, as it must be, included in the test. No matter how "adequate" the banking facilities and services in a market may appear to be, certain direct public benefits would flow, at least in the short run, from the establishment of a new bank. We have referred elsewhere to these benefits as the "structure dimension of performance."[12] They include an increase in the number of sources of supply of banking services, added convenience for some segment of the banking public, and a possible broadening of the available product line. Thus, rejection of a charter application would have to be based on the conclusion that the proposed bank would eventually threaten the continued provision of needed banking services, more than offsetting the immediate public benefit from the new bank. This threat could come only through downward pressure on bank earnings.

The measurement of "need" therefore rests primarily on a projection of the impact of the new bank entry on future bank earnings. The organizers may misread the opportunity for their new bank, with the result that it fails. Another possibility, though less likely, is that new entry may lead to such a worsening of the position of an older bank that it fails. What is the nature of the *public interest* here?

Several considerations are relevant. It is clear that a sizeable wave of bank failures would be disruptive to the credit and payments mechanism of the economy and must be avoided. However, in view of

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[10] Alhadeff, *op. cit.*, pp. 248-249.

[11] The regulatory authorities must guard against any tendency to use the "worthiness" test to prevent the entry of "non-banker types" whom officers of existing banks may suspect of "price-cutting" tendencies.

The logic which supports the application of the "worthiness" test to charter applications equally supports public controls over major changes in ownership of existing banks.

[12] Motter and Carson, *op. cit.*, p. 506.

the standards applied by the chartering authorities, it is highly improbable that new bank entry will produce such a result. There are few new banks in relation to the total number of banks,[13] new banks are comparatively small and thus account for a very small proportion of total bank assets and deposits, and new banks are scattered geographically. Moreover, Federal deposit insurance makes an isolated bank failure less harmful to the community that it once was.

Nevertheless, bank failures are disruptive. They shake public confidence in the banking system, cause public inconvenience, and lead to losses of uninsured deposits.[14] Thus, avoidance of all bank failures would be in the public interest, if it could be achieved without cost. The avoidance of failure of *new* banks would not, however, be costless to society. Absolute avoidance could be achieved only by an absolute bar to entry, at the expense of a drastic reduction in potential and actual competition and a failure to provide needed additional facilities, especially in unit banking states. This, most would probably agree, is too high a price to pay to avoid an occasional new bank failure.

The risk of failure is greater for a new bank than for the older banks in a market. The existing banks are more likely to have the advantage in terms of experienced management, adequate resources and customer preference. Where this is not true, it is likely to be because the older banks were not meeting the banking needs of the community.[15] In such circumstances, new entry would seem to be consistent with the public interest.

The failure of any one new bank in an area with a number of new banks may have more serious ramifications than the failure of the sole new bank in an area. To an extent, bank customers may identify the new local banks as a group in weighing the advisability of shifting their business to new banks or of retaining their association with a new bank.

In applying the "needs" test, the prime public interest concern is to avoid or minimize new-bank failures due to inadequate demand for their services. It is apparent that if such failures occur, the organizers of new banks have in some sense miscalculated the opportunities which existed.

The "needs" test in effect represents an attempt to weed out those applications in which the organizers have miscalculated the opportunity for a new bank. We have seen the extent and the limits of the public interest involved in the endeavor to prevent new entry in such circumstances. We now turn to an evaluation of the probable efficacy of this endeavor.

Professor Alhadeff holds that "(t)he need doctrine imposes an unenviable responsibility on the chartering authorities who are expected to attain an ill-defined goal by means of ill-defined criteria."[16] He amplifies his position as follows:

Even if everyone could agree in principle

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[13] For example, the number of new commercial banks commencing operation during 1964 equalled 2.5 percent of the total number of commercial banks in operation at the beginning of the year.

The possibility that entry will lead to failure of an older bank is discussed below.

[14] When the FDIC arranges for the assumption of a failing bank's deposits by another bank, no losses are entailed for any depositor. This method was employed by the FDIC in the recent Malone State Bank case in Texas.

[15] A partial qualification may be noted. Were a market which could support only one bank to be entered by a second, newly-organized bank, it is possible that the existing banking business could be so divided that neither institution could survive indefinitely on that basis. Even here, however, one bank would in fact outlast the other, and the odds would favor the older bank, other things being equal.

[16] Alhadeff, *op. cit.*, p. 251.

on a definition of need, they might disagree on whether the conditions of need are fulfilled in particular cases. Under the profitability test of need, both the charter applicant and the chartering authority must estimate a new bank's earnings. The difficulty is that market forecasting is an art, not a science, and if equally conscientious and qualified forecasters included somewhat different variables and assigned them different weights, they might come to different conclusions about the earnings prospects for a new bank. For example, a charter applicant's estimates of the prospects for a new bank might give a lot of weight to non-objective elements like the enthusiasm, drive, and resourcefulness of the organizers.[17]

Are there any reasons to expect the "market forecasts" of the regulatory authorities to be more accurate than those of the organizers? It would appear that the regulatory authorities have several advantages in this respect. The field representatives of the regulatory authorities have a wealth of information about specific banking markets, much of which is not available to organizers. The regulatory authorities are also likely to have greater banking expertise than the organizers of new banks, the majority of whom are non-bankers. Further, it is far from clear that the weight given by the regulatory authorities to "nonobjective elements like the enthusiasm, drive, and resourcefulness of the organizers" would be less realistic than that assigned to these factors by the organizers themselves.[18]

There is one consideration, however, which weighs heavily in favor of the applicants' judgment. Every charter application indicates the willingness of a group of entrepreneurs to risk their capital in a new enterprise. Such private decisions to invest are the keystone of the private enterprise system and should not be negated lightly even in a partially regulated industry such as banking. In the unregulated industries, it is clear that private decisions to enter should not be subject to a public clearance procedure even though "waste" resulting from some failures might be so avoided;[19] the "costs" in terms of lessened competition and misallocation of resources would be too great. Banking is a special case because of the relationship between the public and banks in general, and between *depositors and banks* in particular. In simplest terms, it is the differing impact on a community of the failure of the neighborhood hardware store as contrasted with the failure of the neighborhood bank that has been the basis for public control of bank entry.

The analysis of this section indicates that the screening of charter applications by a "needs" test, interpreted "liberally" from the standpoint of applicants, is likely to achieve results more nearly in line with the public interest than could be achieved under any available alternative. This policy would allow the rejection of those applications which have passed the "worthiness" test but

[17] *Ibid.*, p. 250.

[18] It could be argued that economies of scale in banking provide another reason for public review of bank charter applications. Entry of an additional bank into a market may result in a reshuffling of business among banks, such that each previously-existing bank must reduce its long run "output," and thus possibly lose some benefit from economies of scale. Lack of precise data on scale economies in banking, and the absence of certainty that the benefits of such economies are or will be passed along to customers, make it impossible for chartering authorities to give important weight to this factor in the general case. However, it is an implicit corollary, on the supply side, to the analysis of limited demand for banking services in those communities which appear unable to support more than one or two banks.

[19] That is, a public board controlling entry might have some of the same advantages in appraising the likelihood of success of a proposed venture that were previously noted as available to the banking regulatory authorities.

which rest on a rather apparent miscalculation of the opportunity existing for a new bank. It would also avoid the danger that public controls over entry may become mere protective devices for existing banks.

III. *Entry by the National Banks Chartered in 1962*

A. Selection of New Bank Group for Study

The period 1962-1964 was characterized by a sharp increase in the number of newly-chartered commercial banks.[20] (See Table 1 and Appendix.) The peak preliminary approvals of national bank charters during this period was reached in the third quarter of 1963; both the absolute number of approvals and the proportion of applications approved has dropped substantially since then. (See Table 2.) Because of the lag between preliminary approvals and charter issuance, the number of national bank charters issued was greater in 1964 than in 1963. The data on preliminary approvals indicate that the number of national bank charters issued during 1965 will be substantially smaller than the 1964 figure.

Thus, the period 1962-1964 was a highly significant one for the structure of banking markets. Prior to it, the expansion of banking facilities had failed to keep pace with the postwar increases and locational shifts of population and economic activity. During this period, the increase in both newly-organized banks and branch offices substantially decreased the gap.

In an effort to shed some light on the "new bank" phenomenon, this study examines the characteristics, operating results and performance of a group of newly-organized banks. In the choice of the sample, several criteria were used. First, analysis is facilitated by the use of banks formed within one relatively short time period, say, a year. The selected banks then develop together over the same time span, and are exposed to the same overall cyclical influences. Second, the sample had to be large enough to yield meaningful analytical results. Third, the banks had to be in operation long enough to provide a basis for analysis.

The group of 64 newly-organized national banks chartered in 1962 was selected as coming closest to meeting these criteria.[21] The 1963 class would have met the second criterion better than the 1962 class, but it failed to meet the criterion of a sufficiently long history. Even the 1962 class does not meet the latter criterion ideally, since its members had a history of only 24 to 36 months as of the end of 1964.

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[20] In the case of national banks, issuance of a charter by the Comptroller usually precedes the bank opening by only two or three days. Therefore "charters issued" and "banks opening for business" in a given period correspond closely for national banks. Most of the data available for total number of new state banks are in terms of openings.

For national banks, charter issuance usually occurs within two to eight months following "preliminary approval" of charter applications. Because of this lag, the number of "preliminary approvals" and number of "charters issued" in a given time period need not correspond closely.

[21] A further practical constraint was that the choice be restricted to national banks in order to ease the problem of gaining full access to relevant data.

As Table 1 shows, charters were issued to 65 newly-organized national banks during 1962. However, one of these was immediately absorbed and is therefore excluded from our sample. For ease of reference, the remaining 64 banks will be termed the "1962 class" throughout this study.

Twenty of the 64 received preliminary approval from Comptroller of the Currency Gidney. The remaining 44 were approved by Comptroller of the Currency Saxon.

Table 1

Number of Newly-Organized Commercial Banks Chartered or Opened, by Chartering Authority, 1946-1964

Year	National*	State†	Total
1946	21	123	144
1947	17	92	109
1948	15	65	80
1949	11	60	71
1950	7	61	68
1951	9	53	62
1952	15	58	73
1953	16	52	68
1954	16	55	71
1955	28	88	116
1956	30	93	123
1957	20	67	87
1958	18	78	96
1959	24	94	118
1960	34	103	137
1961	26	86	112
1962	65	120	185
1963	164	136	300
1964	205	136‡	341

* National bank figures represent charters issued.
† State bank figures represent openings; non-insured banks are included.
‡ Figure provided by the Federal Reserve Board.
Sources: National bank data are from the Office of the Comptroller of the Currency. State bank data are taken from Board of Governors of the Federal Reserve System, **Annual Reports,** 1946 through 1963.

Table 2

Disposition of Applications for National Bank Charters* by Quarters, 1962-1965

Quarters	1962	1963	1964	1965†
First quarter				
Approved	18	53	51	9
Rejected	3	14	38	43
Second quarter				
Approved	31	66	57	
Rejected	5	35	52	
Third quarter				
Approved	35	76	47	
Rejected	1	64	56	
Fourth quarter				
Approved	48	63	30	
Rejected	8	62	96	
Calendar year				
Approved	132	258	185	
Rejected	17	175	242	

* Includes conversions. Minor revisions of previously published data are incorporated.
† January and February only.
Source: Office of the Comptroller of the Currency.

Table 3

Newly-Organized National Banks Chartered in 1962, by States

State	Number of Banks
Texas	14
Florida	8
Colorado	6
California	5
Michigan	4
Illinois	3
New Jersey	3
Louisiana	2*
South Carolina	2
Virginia	2
Arkansas	1
Connecticut	1
District of Columbia	1
Iowa	1
Kansas	1
Maryland	1
Massachusetts	1
Minnesota	1
Missouri	1
New Mexico	1
Oklahoma	1
South Dakota	1
Utah	1
Washington	1
Wyoming	1
	64

* Omits one bank which was immediately absorbed.
Source: Office of the Comptroller of the Currency.

Table 4

National Banks Chartered in 1962, by Population of Metropolitan Area or Community*

Population	Number of Banks
1,000,000 and over	17
500,000 to 999,999	13
100,000 to 499,999	11
50,000 to 99,999	1
25,000 to 49,999	5
10,000 to 24,999	3
Under 10,000	14
Total	64

* If a bank were located within a Standard Metropolitan Statistical Area, the population of that area was used. Otherwise, the population of the city, town or village where located was used.
Source: Office of the Comptroller of the Currency, and Bureau of the Census, U.S. Department of Commerce, "Standard Metropolitan Statistical Areas of the United States, 1963."

B. Characteristics of the 1962 Class

The distribution of the 1962 class among states is shown in Table 3. Unit banking states were the site of 38 of the 64 banks. Three of these states, Texas, Florida and Colorado, accounted for 28 banks, or about 44 per cent of the total.

A gross regional classification shows the following distribution: North, 19; South, 30; West, 15.[22] The distribution of the 1962 class by population of area or community is shown in Table 4. Forty-one of the banks, or 64 percent, were located in Standard Metropolitan Statistical Areas (SMSAs) with a population of 100,000 or more. Thirty of these were in areas with 500,000 or more residents. On the other hand, 14 were located outside SMSAs in communities with less than 10,000 population.

In Table 5, the banks in the 1962 class are cross-classified by four characteristics, including region, location within or outside SMSAs and branch law of the states.[23] Eighteen of the 64 banks were located in the South within SMSAs in unit banking states, the highest number of observations in any cell based on the *triple* classification.[24] The next highest frequency was nine, found in the North within SMSAs in branch banking states.

The distribution of the initial capitalization of the 1962 class is shown in Table 6. While five of the seven banks with capitalization over $950,000 were located in branch banking states, the median capitalization of the banks in unit banking states was slightly higher than that of the banks in branch banking states.

Table 7 shows the regional distributions of average wealth of individual or-

[22] The regional classification used is presented in Table 5, note §.

[23] The fourth characteristic, number of competitors, is discussed in the next section.

[24] Cell figures for the triple classification are found by adding the paired numbers in the table.

Table 5

Cross-Classification of the 1962 Class by Branch Law,* Number of Competitors,† Location Within or Outside SMSA,‡ and Region.§

Branch Law—Number of Competitors	Number of Banks						Totals
	Within SMSA			Outside SMSA			
	North	South	West	North	South	West	
Unit Banking States							
0 or 1 competitor	1	13	1	1	0	1	17
2 or more competitors	4	5	2	1	6	3	21
Branch Banking States							
0 or 1 competitor	2	2	2	0	1	2	9
2 or more competitors	7	0	3	3	3	1	17
Totals	14	20	8	5	10	7	64

* "Branch banking states" includes both statewide branching and limited branching states. The unit-branch division is that used by Shull and Horvitz, "Branch Banking and the Structure of Competition," **The National Banking Review**, 2, March 1964, p. 341.

† For new banks located within Standard Metropolitan Statistical Areas, classification is based on the number of commercial banks operating within three miles of new bank site at the time charter application was processed. For new banks located outside SMSAs, classification is based on number operating within 15 miles.

‡ A principal requirement for an area to be classified as an SMSA is that it contain a city (or two contiguous cities) having a population of 50,000 or more.

§ The 24 states and the District of Columbia in which one or more national banks were chartered in 1962 were classified as follows: Connecticut, District of Columbia, Illinois, Iowa, Kansas, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, and South Dakota in the North; Arkansas, Florida, Louisiana, Oklahoma, South Carolina, Texas, and Virginia in the South; California, Colorado, New Mexico, Utah, Washington, and Wyoming in the West.

Source: Office of the Comptroller of the Currency.

ganizers for the banks in the 1962 class. The range was from about $75,000 to several million dollars per organizer. The median figure was highest for banks located in the West and lowest for those in the South.

A wide variation existed among the 1962 class in the percent of stock held by directors and their families shortly after opening of the bank. The distribution is shown in Table 8, broken down by unit and branch banking states. The median percent held for banks located in unit banking states was well above that for banks in branch banking states. Association[25] of new banks with existing

Table 6

Initial Capitalization of National Banks Chartered in 1962

Capitalization* ($)	Number of Banks
950,000 and over	7
850,000 to 949,999	1
750,000 to 849,999	4
650,000 to 749,999	2
550,000 to 649,999	9
450,000 to 549,999	14
350,000 to 449,999	16
250,000 to 349,999	9
Below 250,000	2
Total	64

* Includes capital stock, surplus and undivided profits accounts.

Source: Office of the Comptroller of the Currency.

[25] The general situation of new banks associated in some way with existing banks is discussed in Part IV, while certain results for these banks are presented in Part VI.

Table 7

National Banks Chartered in 1962, Classified by Average Wealth of Individual Organizers and by Regions*

Mean Individual Wealth	North	South	West	Total
1,000,000 and over	2	3	2	7
750,000 to 999,999	2	1	1	4
500,000 to 749,999	1	2	4	7
400,000 to 499,999	4	3	1	8
300,000 to 399,999	3	5	0	8
200,000 to 299,999	3	7	3	13
100,000 to 199,999	4	7	4	15
50,000 to 99,999	0	2	0	2
	19	30	15	64

* See Table 5, Note §, for regional classification.
Source: Office of the Comptroller of the Currency.

Table 8

Percent of Stock Held by Boards of Directors* for National Banks Chartered in 1962,† Classified by Unit and Branch Banking States

Stock Held: (% of Total)	Branch	Unit	Total
90.0 to 100.00	0	1	1
80.0 to 89.99	0	1	1
70.0 to 79.99	2	3	5
60.0 to 69.99	1	4	5
50.0 to 59.99	4	3	7
40.0 to 49.99	5	2	7
30.0 to 39.99	2	1	3
20.0 to 29.99	4	2	6
10.0 to 19.99	1	1	2
Total	19	18	37

* Includes stock held by immediate families of directors. Figures are as of the first examination of the banks.
† Data include 37 banks.
Source: Office of the Comptroller of the Currency.

banks through any one of a number of devices, including holdings by common stockholders, is considerably more prevalent in unit banking states than in branch banking states; to some degree the data on stock held may reflect this. In all, 33 of the 64 banks at their formation had one or more of the following relationships with one or more previously existing banks: common director or directors; common officer or officers; common major stockholders, including bank holding companies. Of these 33, 25 were located in unit banking states.

It is sometimes said that it is more difficult to secure adequate top management

Table 9

National Banks Chartered in 1962, Classified by Average Number of Years of Banking Experience of Proposed Officers and by Unit and Branch Banking States

Number of Years of Banking Experience per Proposed Officer	Branch	Unit	Total
over 30	3	2	5
25.0 to 29.99	1	1	2
20.0 to 24.99	2	4	6
15.0 to 19.99	2	8	10
10.0 to 14.99	9	13	22
5.0 to 9.99	8	9	17
0 to 4.99	1	1	2
Total	26	38	64

Source: Office of the Comptroller of the Currency.

personnel for new banks in unit banking states than in branch banking states.[26] While this may or may not be true, the data in Table 9 provide evidence that the number of years of banking experience of management personnel actually hired by 1962 bank organizers was very similar in unit and branch banking states. The number of years of banking experience is not, of course, suggested as an adequate measure of management quality, but rather as one index which can easily be secured.

C. Competitive Environment Faced by the 1962 Class of National Banks

Forty-two of the 64 banks in the 1962 class were located within Standard Metropolitan Statistical Areas.[27] (See Table 4.) Of these, 17 had sites within the boundaries of the major population centers of the respective SMSAs, while 25 were located in communities outside these centers.

At first glance, it may appear that this distribution of the 42 banks would allow an urban-suburban classification. However, a closer examination of the setting of each bank led to a rejection of this classification. Only a handful of the 17 banks located within the major population centers of their respective SMSAs were "downtown" banks. Not surprisingly, most were located in areas of their cities which were primarily residential in character, the site of recently constructed shopping centers, and still experiencing considerable residential construction activity. In a phrase, most of the 17 were located in a suburban-type setting, although within the major cities' boundaries. Most of the 25 new banks with offices within an SMSA but outside its major population center were also located in suburban-type settings.

[26] The argument is this: on the demand side, more new banks are chartered, relative to the total number of existing banks, in unit banking states than in branch banking states; on the supply side, branches of large systems are a better training ground for new bank executives than are the offices of large unit banks. Some bankers steadfastly doubt the latter, holding that a branch manager's experience is too parochial to provide the ideal background to run a new bank. It should also be noted that the individual states are not closed systems; new bank organizers often lure their management personnel from other states.

[27] The major requirements for designation of an area as an SMSA are that it include a city (or, in certain instances, a combination of two cities) with a population of at least 50,000 and that it meet certain standards which indicate it to be an economically integrated non-rural area. See U.S. Department of Commerce, Bureau of Census, *Census of Population:* 1960, Vol. 1, p. xviii, for complete definition.

It seems fair to generalize that, apart from the few downtown banks in the group, the similarities in the environment of the new banks located within SMSAs were more important than the differences. Further, the inside city-outside city classification was not very useful as a device to isolate the differences which did exist. The principal differences in setting which can vitally affect a new bank's prospects include the capacity of an area for economic growth, its population density, the income level of residents, and the existing banking structure. The ideal situation which bank organizers seek is one in which changes in banking structure have lagged behind the growth of population and income.[28]

Sixty-four separate studies would be required to describe adequately the banking structure of each market entered by the 64 national banks chartered in 1962. However, summary figures on the number of existing banks and banking offices located near the new banks provide some indication of the competition they faced initially.

In Table 5, data are presented relating to the number of commercial banks operating one or more offices within a stated radius of new bank sites at the time the charter applications were being processed. In that table, new banks located within SMSAs were placed in two categories: (1) those with zero or one bank operating within three miles; (2) those with two or more banks operating within the same radius. The new banks located outside SMSAs were similarly classified, except that the radius used was 15 miles.[29]

Of the 26 new banks located within SMSAs in unit banking states, 15 selected sites with zero or one commercial bank operating within three miles. Only six of the 16 new banks located within SMSAs in branch banking states were similarly situated. Of the 22 new banks located outside SMSAs, only five faced less than two commercial bank competitors within 15 miles; two of these were in unit banking states, three were in branch banking states.

Table 10 shows the actual number of commercial banks and commercial banking offices operating within the stated radii of the 1962 class members, classified by location within or outside SMSAs. Five of the 42 new banks located within SMSAs faced six or more commercial bank competitors within three miles. Seven of the 42 were located within three miles of eight or more commercial banking offices. At the other end of the scale, seven of the 42 had no commercial bank rivals within three miles,[30] and 14 others had only one. The distribution of competitive *offices* is similar, in part due to the preponderance of cases in unit banking states.

Each of the 22 new banks located outside SMSAs had at least one commercial bank competitor within 15 miles of its site. Five of the 22 had only one such competitor within this radius, while eight others had two. Only three of the 22

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[28] See Motter and Carson, *op. cit.*, pp. 492-496, for a discussion of this lag.

[29] Use of three-mile and 15-mile radii was arbitrary and does not reflect the view that competition was absent between a new bank and an existing bank farther away. However, knowledge of the number of competitors within a radius reasonably related to population density is a relevant fact in comparing the competitive situation of new banks. The figures given include any other new banks whose applications were on file concurrently with the given bank and which were later approved. They do not include other banks or branches established since the opening of the given bank.

[30] The situation of these seven banks reinforces the point made in note 29. For these banks, it is obvious that all their competitors were more than three miles away, i.e., were located wherever the residents in the area banked prior to the advent of the new bank.

Table 10

National Banks Chartered in 1962, Classified by Number of Commercial Banks and Number of Commercial Banking Offices* Operating Within Stated Distance, and by Location Within or Outside SMSA

Number of Banks and Number of Banking Offices Within Stated Distance of New Bank	Distribution of 1962 Class Located in Standard Metropolitan Statistical Areas by:		Distribution of 1962 Class Located Outside Standard Metropolitan Statistical Areas by:	
	No. of Banks within 3 Miles of New Bank	No. of Banking Offices within 3 Miles of New Bank	No. of Banks within 15 miles of New Bank	No. of Banking Offices within 15 Miles of New Bank
10 or over	1	4	0	1
9	1	1	0	0
8	2	2	1	0
7	0	0	0	0
6	1	0	2	2
5	3	3	0	1
4	3	4	0	1
3	5	4	6	5
2	5	5	8	8
1	14	12	5	4
0	7	7	0	0
Total	42	42	22	22

* As of date of processing of charter applications.
Source: Office of the Comptroller of the Currency.

faced more than three competitors within 15 miles.[31]

IV. *The Operations of New Banks: General*

A. Problems and Advantages Inherent in the "New Bank" Situation

In selecting a site, the organizers of a new bank face a situation in which all of its existing competitors have exercised a prior choice. The extent of the advantage this gives existing banks will be determined by the length of time which has elapsed since the earlier choices were made, the foresight shown by these banks in their choices, and the degree to which changes in land use and traffic flows have occurred in the interim. In an area characterized by rapid growth of population and economic activity, the organizers of a new bank may be able to choose a site superior to those of existing banks.

Alert organizers will take advantage of the experience of existing banks in choosing a design for their facility.[32] This, plus the attractiveness inherent in newness itself, is likely to yield some advantage in facilities to a new bank over its older rivals.

Once the bank is ready to open for business, the primary problem of the management is to make the public aware of its existence. Extensive advertising campaigns are mounted by most new banks prior to opening day, principally in the media which best allow a concentration in the service area, such as neighborhood newspapers, shopping flyers, and

[31] In two of these three cases, the areas are close to the requirements for an SMSA.

[32] The major correspondent bank, once chosen by the organizers, is often a source of architectural advice, just as it gives assistance in helping the new bank overcome many of the problems discussed in this section. Attention is given below to the new bank-correspondent bank relationship.

door-to-door circulars. While the volume of advertising is not maintained at the pre-opening level, most new banks continue a sizeable advertising expenditure.

The organizers, directors, management, and other initial stockholders typically engage in an extensive program of personal solicitation of business for the bank. It is this program which primarily accounts for the large opening-day deposit volume achieved by some new banks. While a personal solicitation program usually becomes a part of the permanent activity of full-time management, this activity on the part of organizers and directors often tapers off after personal and business friends and acquaintances have been canvassed. The typical deposit growth pattern of a new bank shows a rapid rise for the first several months, followed by a much more gradual increase.[33]

A sampling of views of new bank management indicates the belief, usually grounded in survey results, that most new business coming to the bank after the first few months of operation stems from word-of-mouth. Some officers stated that about two-thirds of their banks' new accounts after the initial period came from this source, with the remainder traceable to personal solicitation and advertising.

Every new bank officer contacted stressed that the securing of additional deposits, the "raw material" of banking, represented his bank's primary problem. The strong capital structure required by the regulatory authorities as a condition for charter approval means that an adequate rate of return on capital can be achieved only after the growth of deposits, and in turn, loan and investment portfolios, to some given level. In an effort to increase deposits, some new banks have expanded their banking hours above the norm in their markets, and have lowered service charges on checking accounts below the norm.[34]

Most new banks have not experienced much difficulty during the past two years in finding borrowers to absorb the funds available for loans. The screening of prospective borrowers does present new bank management with an especially delicate test, however, since any new bank initially faces an adverse selection in the group of prospective borrowers who seek credit from it. A significant number of these will be individuals or businesses who have been unable, for a variety of reasons, to secure loans from other commercial banks. The new bank may convert this problem to its own advantage if, with great care and discrimination, it provides a fresh appraisal of the creditworthiness of these borrowers.

New banks enjoy certain inherent advantages in their struggle to become established. These advantages all relate, in one way or another, to "newness" and "smallness." First, some customers will be attracted to a new bank because of the novelty of dealing with a new enterprise in attractive new quarters. This lure is likely to be most significant when the number of existing banks is quite limited or when no new bank has been established for a long period. When several new banks are established in a market over a relatively short period of time, the advantage of "novelty" is successively reduced for each.[35]

Second, no matter how well run the existing banks are, some of their customers

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[33] Some banks have found that initial stockholders identify with the new bank more than do individuals who later buy the stock in the market.

[34] These policies are given more attention in Part VII.

[35] This is one factor which accounts for the metamorphosis in attitude toward chartering policy which is likely to occur on the part of

will be dissatisfied at any given time and may welcome the opportunity to shift to a new bank. The proportion of dissatisfied customers will tend to vary inversely with the number of existing banks in the market.

Third, some customers, including both depositors and lenders, will be attracted by the opportunity to deal with a small institution. New bank officers reported that they found this attitude especially prevalent among small businessmen who find beneficial the ready opportunity to present the special circumstances of their credit needs to the bank president himself. The advantage accruing to the new bank from this attitude is greatest when the market is served only by medium-sized to large banks.

B. The New Bank-Major Correspondent Bank Relationship

A number of medium-sized and large correspondent banks offer a whole range of services to the organizers and, subsequently, the management, of a new bank, in return for the maintenance by the new bank of a sizeable deposit.[36] In areas which have seen large numbers of new banks established in recent years, active competition exists among the banks with correspondent programs to become the major correspondent of the banks being organized. It is not uncommon for new-bank organizers to hear presentations from representatives of several potential correspondents before making their choice of major correspondent. This competition has led to such an expansion of the services which correspondent banks offer to new banks that the operations of the latter, especially in the first year, may be substantially affected.

1. *Services offered prior to opening of the new bank.*

Some correspondents will provide advice on the organization and presentation of materials for charter applications. A correspondent may extend loans to individual organizers, directors and prospective management for purchase of stock of the new bank. These loans do not, as a general rule, exceed 80 percent of the total amount paid for the stock by the borrower, though the figure can vary considerably with the financial condition of the latter. Officers of some correspondent banks emphasize that their institutions treat these loans essentially as signature loans; when this procedure is followed, a stock purchaser who qualifies for a loan would presumably have also qualified for the same loan for any other legal purpose.[37] Some correspondents also include as a part of their package, the provision of loans for purchase of a home by new-bank management personnel who will be moving to the vicinity.

In those instances in which the organ-

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directors and management of a new bank *after* issuance of that bank's charter: while chartering of their bank was absolutely necessary to create "new competitive vigor," the chartering of any additional banks will lead to "overbanking." The change in position is of course perfectly rational, since a given new bank is likely to be hurt more by entry of a second new bank than are the previously-existing banks. New bank management, in protesting a charter application, may also make the point discussed in Part II, i.e., all new banks in an area may be hurt by the failure of any one new bank.

[36] Throughout this discussion the term "correspondent bank" will be applied only to the institutions which receive a deposit from and supply the services to the "new bank."

[37] In those instances in which it is legal to do so, the correspondent holds the new-bank stock as collateral, however. The extension of loans by correspondent banks to stockholders of "country" banks has been questioned as open-

izing group has not yet secured its top management, perhaps the most important service provided by correspondents is aid in recruitment. A variety of other pre-opening services are offered by correspondents. These may include the advice of architects retained or employed by the correspondents in drawing up plans for the banking facility, training programs for prospective tellers and other employees of the new bank, leasing or selling of used equipment owned by the correspondent, provision of escrow account service for stock subscription funds, advice on advertising programs, and access to all the forms and operating manuals used by the correspondent.

2. *Services offered after opening of the new bank.*

The organizers of a new bank always hope to be deluged by depositors on opening day. Some correspondents will supply a number of their own personnel to cope with the anticipated activity. Many correspondents, for a fee, will handle all the data processing and record keeping for the new bank.[38]

The service offered by some correspondents which has the greatest impact on the operating results of new banks during their first year is the provision of a ready-made loan portfolio. The process of finding creditworthy loan applicants to absorb available funds takes time. Meanwhile, there are funds available from the first wave of deposits.

The mechanics of the loan operation vary among correspondents. Some allow the new bank to participate in certain loans of the correspondent, with the latter servicing the loans and bearing the full risk of default. A limit on the total of such participations may be imposed by the correspondent; a common limit is the total capital and surplus of the new bank. Some correspondents use only installment paper for this purpose, while others use high quality commercial paper.[39] The rate received by the new bank is subject to bargaining. Whatever the rate, it is typically reduced over time to give a positive incentive to the new bank to replace these participations with loans generated by it. Most participation agreements have a terminal point, often one year.

Some correspondents prefer to sell loans to the new bank, with the latter assuming the risk of default. The amount of any one loan sold cannot exceed the

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ing up "the possibility of a commitment to non-earning use, for the personal benefit of the borrower, of a portion of bank funds otherwise available for employment in loans or investments." See *The Structure of Ownership of Member Banks*, Subcommittee on Domestic Finance, Committee on Banking and Currency, House of Representatives, 88th Congress, Washington, D. C.: U.S.G.P.O., 1964, p. 12ff. The key question in evaluating this argument is whether or not the loans would have been extended at the same rate in the absence of the correspondent relationship.

[38] One problem which now exists is likely to be eliminated by future technological advances. It is now difficult to extend the services to banks located more than 75 miles from the data processing center. If cheaper machines for feeding data by wire to a computer are devised, this barrier will disappear. Correspondent bank officers hold that the fee charged for data processing is often significantly less than the cost which would be incurred by a new bank in doing the work itself. For example, the $650 monthly fee paid by one bank would not cover the cost of one operator and one machine, and the latter could not handle the work load.

[39] The mechanics of participations in installment loans could become burdensome. In practice, it may be handled by allowing the new bank to participate to some given percentage in a particular bundle of installment loans. The bundle could be, for example, the outstanding installment loans of a branch of the correspondent.

lending limit of the new bank. Loan participations and loan purchases from its correspondent reduce the pressure on a new bank's management to build up its own loan portfolio rapidly. As a result, the new bank is less likely to lower its credit standards during its initial period of operations.

Correspondents also offer their own participation in loans generated by a new bank which exceed the latter's lending limit. They do so on the basis of their appraisal of individual loans.[40]

New banks also make use of the battery of services typically offered by correspondents to all banks, old and new, which maintain deposits. The original purpose of the correspondent banking system was to facilitate check clearings. While the Federal Reserve System provides member banks with an alternative (or supplementary) clearing mechanism, most small member banks, including new banks, prefer to clear through their correspondents.[41]

Continuing advice on the investment program of the new bank is also available from the correspondent, as is counseling on budgeting and cost control methods. The services of the trust department of the correspondent may be drawn upon by customers of the new bank. Most correspondents offer a complete package of international banking services, thus allowing a new bank to facilitate the international transactions of its customers. Credit information is supplied as needed.

It seems fair to generalize that correspondents offer new-bank organizers and management aid in solving most of the problems encountered in establishing and operating a new bank.

3. *The return to the correspondent.*

The data processing service is offered by correspondents on a fee basis, with the fee structure presumably set to make the operation a profitable one.[42] A few of the other services offered to new banks and their customers, such as provision of credit information on prospective borrowers, execution of securities transactions, and international transactions, typically entail payment of the correspondent's out-of-pocket costs. By and large, however, most of the services discussed are made available without the levying of specific fees or charges. The average balance maintained by the new bank with the correspondent is expected to compen-

[40] A correspondent bank may on occasion find its total participation in loans generated by its correspondent program greater than its total deposits from that program.

[41] According to a recent study, 80 percent of unit member banks with less than $10 million in deposits, and 86 percent of branch member banks in the same size category, prefer to clear through correspondents rather than through Federal Reserve banks. See *A Report on the Correspondent Banking System*, Subcommittee on Domestic Finance, Committee on Banking and Currency, House of Representatives, 88th Congress, Washington, D. C.: U.S.G.P.O., 1964, p. 14.

[42] Three circumstances combine to make the establishment of the fee structure for new banks an interesting pricing problem, though we do not examine it here: (1) data processing, while on a fee basis, is a part of the whole package offered by prospective correspondents in their competition to secure the deposits of new banks; (2) the likely presence of excess capacity in the data processing divisions of some correspondent banks, coupled with the desire to expand rapidly the usage of what is still a relatively new service, may make price concessions seem appropriate to some sellers; (3) the typically oligopolistic structure of the service markets may act as a partial offset to at least the first factor in (2).

sate the correspondent for expenses incurred.[43]

4. *The impact of the correspondent relationship on the establishment and operation of new banks.*

It is likely that a major competitive effect of the existence of the correspondent relationship for new banks is an increase in the number of charter applications submitted and the number of new banks established. Some of the services discussed above facilitate the pre-opening organization, some lessen the period of time prior to "break-even," some allow the bank to operate more efficiently than it otherwise could, and some broaden the line of products and services which the new bank can make available to its customers. In whichever of these four partially-overlapping categories a particular service offered by the correspondent may fall, its availability makes the task of the bank organizers more attractive and less onerous.

Analysis of other effects of the relationship on competition is beyond the scope of this paper.[44]

C. Association of a New Bank With An Existing Bank

It was noted in Part III that 33 of the 64 national banks chartered in 1962, had some type of association with one or more existing banks.[45] The strength of the relationship varied from having a single common director with another bank, to being controlled by a bank holding company. The advantages which an "associated" new bank may enjoy, compared with an "unassociated" one, vary with both the degree of the association and the resources of those banks with which the new bank is associated.

The staff of a new bank that is controlled by a bank holding company will

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[43] A comprehensive compilation of all costs incurred by one correspondent in extending the full gamut of services to a new bank during the first six months of its operations indicated a nominal "profit" in the first quarter and a larger one in the second quarter. It is likely that the costs incurred by a correspondent in meeting the needs of a new bank typically decline after the first few months of the latter's operation. Thus, the profitability of the account analyzed should increase if the balance remains the same.

It should be noted that the analysis of "profitability" is unlikely to be precisely accurate: it rests on an assumption made about the rate of return secured by the correspondent in its use of the balance; also, the record of services extended and their cost may be incomplete. Further, a hesitancy was noted on the part of some correspondents to ask a bank to increase its balance, even when the account was unprofitable. This attitude was expressed as follows: "If we did ask the bank to do so, it might shift correspondents, and another bank would snap up the account. This would be unfortunate because our deposits would decline." It is not clear whether this attitude is sufficiently widespread to be important. To the extent that it exists, it is consistent with the thesis advanced by some economists that firms may at times be more concerned with maximizing growth or size than profits.

[44] In branch banking states, correspondents typically do not attempt to secure the account of a new bank located in the same market as one of its own offices, on the assumption that such an effort would be fruitless. However, should the organizers of a new bank so located come to that correspondent and ask that the relationship be established, their request may be accepted. Correspondent banks may refrain from establishing a relationship with a new bank when it will compete with an existing "customer" of the correspondent. In unit banking states, the first situation exists much less commonly than the second.

[45] The term "association" is used rather than "affiliation" in order to cover a broader range of relationships and to avoid the specific legal connotations of the latter.

often be drawn from the system; the arrangement may involve a permanent, a temporary, or a part-time assignment. The president of the new bank may continue to serve as an officer of one or more of the other banks.

In general, an associated new bank may draw upon its sister institutions for some of the same services which are offered by major correspondents.[46] The difference is not so much in the type of service as in the way the service is performed and in its "cost" to the new bank. For example, where a correspondent bank may help organizers screen candidates for management positions, the associated banks may supply management personnel from their own ranks.[47] A correspondent requires a deposit to be maintained with it, but may supply an initial loan portfolio. One or more of the established associates may deposit a sizeable sum in the new bank in addition to supplying it with a loan portfolio.

The operations of associated banks cannot be treated here in any detail.[48] From the standpoint of this study, the major point is that newly-organized banks which are closely associated with established banks are likely to have certain advantages over completely independent new banks, especially in their initial period.[49]

[46] If the group does not contain a large urban bank, it will already have a correspondent relationship with such a bank. This relationship is likely to be extended to cover the new bank in the group.

[47] Services of executives "loaned" to a new bank may not be charged to it during the initial period of operations.

[48] Detailed comparisons of the operations of branch systems and groups of associated banks would yield results relevant to the branch banking-unit banking controversy. Associated systems appear most frequently in states in which branching is not allowed.

[49] Data presented in Part VI give some support to this position.

V. *An Assessment of the Operations of the National Banks Chartered in 1962*

A. General Problems in Assessing New-Bank Operations

1. *Goals and limitations.*

The question of how new banks have fared and are faring is highly important for the banking industry, for the bank regulatory authorities, and for the general public. If most of these new banks enjoy substantial growth, and move rapidly toward the attainment of profitable operations, it is a good indication, after the fact, that they are filling a "need" in their respective communities.

The analysis in Part II suggested that the results of the older banks in the markets entered by new banks are not as crucial in evaluating chartering policy as are the results of the new banks themselves. Older banks enjoy some very important advantages in the competitive struggle with a new bank. If the older banks perform as adequately from the public standpoint as does the new bank, they should, on balance, do at least as well as the latter.[50] However, in an attempt to complete the picture, the results of a group of older banks operating in markets entered by members of the 1962 class are examined in Section F below.

The basic difficulty in evaluating the operations of new banks is the fact that

[50] The successful entry of a new bank will lead to a lower aggregate rate of growth and rate of return for the older banks than would have occurred in the absence of entry. Whether rates for the older banks after entry fall below their pre-entry levels depends upon the rate of economic growth of the area.

The inherent advantages of a new bank discussed in Part IV are not likely to outweigh the inherent advantages of established banks.

they are new; the longer the history of a relatively new bank, the more confidently can one assess its position. In 1970, a student of banking will be able to draw more substantial conclusions about the post-1961 class of banks than is possible now.

2. *Problems in interpreting specific data.*

Much of the data relating to the operations of the 1962 class has been drawn from the quarterly Reports of Condition and the annual Reports of Income and Dividends filed by the banks with the Comptroller. Use of these data of necessity involves reliance on the accounting methods used by the various banks to handle such items as unearned interest, organization expenses, and the financing of premises. The treatment of these items is likely to be especially important for new banks.

The usefulness of the ratio of net income after taxes-to-total capital is somewhat lessened by variations in the treatment of loan loss reserves. Consequently, this ratio is supplemented by a ratio which, in effect, standardizes the treatment of loan loss reserves.

The rates of growth of deposits and loans are important measures of new bank results. It is apparent, however, that caution is required in comparing new banks by these measures. The policy of new-bank management toward CD's and toward credit standards, for example, will significantly affect the total deposits and loans achieved.

We have already seen that the details of the arrangement worked out between a new bank and its major correspondent will affect the former's initial operating results. Since these arrangements vary in detail, some new banks will enjoy an advantage over others. To an even greater degree, associations between new banks and groups of established banks can affect comparability of new bank results.

3. *Approach used in processing and presenting the data.*

A number of basic ratios were computed for each of the 64 banks in the 1962 class for 1962, 1963 and 1964.[81] These included several rates of return, other ratios between income or expense items and balance sheet accounts, and still others between balance sheet accounts. Frequency distributions were then set up for each ratio for each date. For example, the ratios of net income-to-total capital for 1962 for each bank were placed in one frequency distribution, and the same procedure was followed for 1963 and 1964. Then the values of the median, upper quartile and lower quartile were obtained for each distribution, and the mean of ratios and standard deviation where appropriate.

This approach and method of presentation offer several advantages. The median and quartiles give equal weight to every bank and are not distorted by extreme values for one or a few observations. These characteristics are important when the aim is to secure an overall picture of the position of the banks under study. For example, the distribution of rates of return for all the banks appears to be more relevant to this assessment than does a single combined rate of return for them.

Full presentation of each of the frequency distributions would have led to an unwieldy assortment of data. The median and the quartiles give a summary picture of the distributions and serve to

[81] Tabular footnotes indicate the number of banks whose results are included in each measure.

concentrate attention on the middle range of figures for the banks.[52] Comparison of the mean of ratios and the median yields one measure of the skewness of the distributions. The standard deviation indicates the dispersion of the observations.

B. Rates of Return for the 1962 Class

Several rates of return for the 1962 class for the years 1962-1964 are presented in Table 11.[53] The most noteworthy feature revealed by the data is the steady increase in rates throughout the period; for each of the rates of return, the median and mean values are higher in each succeeding year.[54] The median for net current operating earnings-to-total assets moved from .13 percent in 1962, to .56 in 1963, to .82 in 1964. One quarter of the banks enjoyed a 1964 ratio of 1.27 percent or higher. Only four of 60 banks still had negative net current operating earnings in 1964.

The median ratios of net income-to-total capital for the three years were −.31 percent, 1.71 percent and 3.45 percent, respectively. In 1964, the top quarter of the banks achieved a ratio of 5.71 percent or higher. In the same year, 49 of 60 banks had positive net income.

In evaluating these results, it should be noted that new-bank ratios based on capital tend to be relatively low, and those based on assets relatively high. This is due to the fact that the capital account of a new bank is large relative to the size of its other balance sheet accounts, including total assets.[55] The effect on these

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[52] Since the complete distributions for each ratio were secured, additional descriptions of particular distributions are presented in the text whenever this seems appropriate.

[53] As pointed out in footnotes to Tables 11 and 12, the full-year 1964 data presented in this study include 60 members of the 1962 class. One bank converted to a state charter during 1964, and therefore was not included in the 1964 figures since it submitted no year-end reports to the Comptroller. The remaining three members of the 1962 class had not yet submitted their 1964 Reports of Income and Dividends to the Comptroller in late January, when it was necessary to "close the books" in order to allow publication at this date.

One of these three was San Francisco National Bank, which was declared insolvent by the Comptroller of the Currency on January 22, 1965. When the 1964 Report of Income and Dividends for this bank later became available, it was revealed that the bank's 1964 ratio of net income-to-total capital would place it between the lower quartile and median values for the 1962 class. Further, its ratio of net current operating earnings-to-total assets would place the bank between the upper quartile and the median.

These results demonstrate that data drawn from I and D statements can be quite misleading when the assets of a bank are of doubtful quality. Thus, added importance is given to the overall distributions of classified assets-to-total capital for the 1962 class, presented in Table 18. As of May 1964, the ratio of classified assets-to-total capital for the San Francisco National Bank was 63 percent, by a very considerable margin the highest ratio at that date for any of the 1962 class members.

[54] The same progression occurs for every quartile value except that of the upper quartile for the 1964 ratio of net current operating earnings-to-total assets, which dropped slightly. This is related to the nature of rates of return based on assets for new banks, discussed below.

[55] This point may best be illustrated by a numerical example. Assume that each of two banks secures a net return on its use of capital funds of three percent and a net return on its use of deposit funds of .5 percent. Bank A has deposits of six units and capital of one unit, or seven units for total liabilities and capital and, therefore, for total assets as well. The bank will have a ratio of income-to-capital of three percent *plus* six times .5 percent, or six percent in total. Its ratio of income-to-total assets will be six percent divided by seven, or .86 percent.

Contrast this with bank B, which has the same net return on its use of capital funds and its use of deposit funds, but has 12 units of deposits and one unit of capital. Its ratio of income-to-capital will be three percent *plus* 12 times .5 percent, or nine percent. Its ratio of income-to-total assets will be nine percent divided by 13, or .69 percent.

Table 11

Distributions of Selected Rates of Return for the 1962 Class of National Banks, 1962-1964

Year	Net Current Operating Earnings to Total Assets* (%)	Net Current Operating Earnings to Total Capital Accounts* (%)	Net Income To Total Capital Accounts* (%)	Net Income Plus Net Additions to Loan Loss Reserves-to-Total Capital Accounts Plus Total Loan Loss Reserves* (%)
1962:†				
Upper quartile	1.13	3.12	3.96	—
Median	0.13	−0.42	−0.31	—
Lower quartile	−1.09	−4.79	−3.96	—
Mean of ratios	−0.11	−0.56	−0.49	—
Standard deviation	1.73	5.88	6.18	—
1963:‡				
Upper quartile	1.33	6.50	4.77	5.56
Median	0.56	2.00	1.71	1.67
Lower quartile	0.03	0.00	−2.50	−2.00
Mean of ratios	0.53	2.99	1.82	1.85
Standard deviation	1.41	6.14	6.31	6.07
1964:§				
Upper quartile	1.27	10.72	5.71	7.25
Median	0.82	6.09	3.45	4.06
Lower quartile	0.39	2.27	0.91	1.36
Mean of ratios	0.76	6.30	2.13	3.62
Standard deviation	0.76	6.44	7.23	7.80

* All balance sheet accounts were centered in their respective periods.

† There were 21 national banks in operation, of those chartered during 1962, as of June 30, 1962. Only these are included in the 1962 figures. The 1962 rates are understated, in that they reflect operations for less than 12 months.

‡ Includes all 64 banks.

§ Data include 60 of the 62 members of the 1962 class still operating as national banks as of February 1, 1965. One bank converted to a state charter in 1964 and one was declared insolvent on January 22, 1965.

Source: Office of the Comptroller of the Currency.

ratios is illustrated by a comparison of certain 1962-class results with those for all insured commercial banks. The upper quartile value for the ratio of net income-to-total capital for the 1962 class was 4.77 percent in 1963, compared to a weighted mean ratio of 8.50 percent for all insured commercial banks. In contrast, the upper quartile value for the ratio of net current operating earnings-to-total assets was 1.33 percent for the 1962 class in 1963, compared with the weighted mean for all insured commercial banks of 1.22 percent.

The opposite biases in these ratios for new banks are reduced over time, as the relationship between capital structure and other balance sheet accounts moves more nearly into line with those for older banks. The capital-deposit ratios for the 1962 class, presented in Table 17, moved steadily downward through the end of 1964. The median figure was 13.8 percent at the latter date.[56]

[56] The weighted mean ratio for all insured commercial banks on the same date is not yet available; as of the end of 1963, the figures were 9.2 percent for all insured commercial banks and 10.8 percent for all banks with deposits of two to five million dollars. See Federal Deposit Insurance Corporation, *Annual Report, 1963*, pp. 144-145.

Varying policies among banks, and for given banks over time, concerning the establishment of and transfers to loan loss reserves affect the comparability of rates of return involving net income. The last ratio shown in Table 11, computed by adding net income and net additions to loan loss reserves (allowable under the Internal Revenue Code), and dividing the sum by the sum of total capital accounts and total loan loss reserves, allows a comparison with the treatment of these reserves approximately standardized. The median of this ratio increased from 1.67 percent in 1963 to 4.06 percent in 1964.

The rates of return presented here represent a satisfactory showing for the 1962 class as a whole, given the fact that these banks had been in operation only from 24 to 36 months at the end of 1964. In the author's view, an absolute standard applied to the results of new banks has more relevance than a relative standard. However, a relative test is of sufficient interest to justify brief attention.

Twenty-four newly-organized national banks were chartered in 1959. At the end of 1961, they were at the same stage of their development as were the members of the 1962 class at the end of 1964.[57] Table 12 presents a comparison of the rates of return for the 1959 class in 1961 and for the 1962 class in 1964. The comparable values are slightly higher for the 1959 class than for the 1962 class. For example, the median ratios of net income-to-total capital were 3.75 percent for the 1959 class and 3.45 percent for the 1962 class. The differences shown are sufficiently small, however, to allow the conclusion that the rates of return of the 1959 and 1962 classes were similar at the same stage of their development.[58]

C. Rates of Growth for the 1962 Class

As noted in Part IV, a new bank typically enjoys an early "honeymoon period" of rapid growth, largely based on the personal and business contacts of its organizers, directors and other major stockholders. While this period of relatively easy growth is important in preparing the bank for the long pull to establish itself, the extent of growth in the next period, say after six or nine months, may be more indicative of its prospects.

Several measures of this later growth were developed. For each bank, four ratios were computed: (1) deposits at end of the sixth quarter of operations-to-deposits at end of the third quarter; (2) deposits at end of the ninth quarter of operations-to-deposits at end of the sixth quarter; (3) and (4) comparable ratios for loan growth.[59] The four frequency

[57] No pair of three-year periods can be found in which the economic climate facing the banking industry was the same. Statistics on rates of return for all banks indicate the earlier period may have been slightly more favorable. For example, the ratios of net current operating earnings-to-total assets for all insured commercial banks for 1959-1963 were, in percent, 1.43, 1.54, 1.43, 1.32 and 1.27, respectively. The ratios of net income after taxes-to-total capital for the same years were 7.94, 10.03, 9.37, 8.83 and 8.86, respectively. See Federal Deposit Insurance Corporation, *Annual Report, 1963*, p. 154. Since the all-bank figures for 1964 are not available at this writing, a comparison between 1961 and 1964 all-bank results is impossible.

[58] The differences between means were not statistically significant at the .05 level for either ratio.

[59] Since the deposit and loan figures were drawn from Reports of Condition, the figures for the first quarter reflect operations during some fraction of that quarter, depending on the date of opening during the quarter. The product of the sixth quarter/third quarter and ninth quarter/sixth quarter ratios is the ninth quarter/third quarter ratio.

distributions which resulted are summarized in Table 13.

The median increase in total deposits for the 64 banks during the fourth-through-sixth quarters of operation was 54 percent, as reflected in the ratio of 1.54. Only one-quarter of the banks had a deposit increase of less than 34 percent during this period, and only six of these had an increase of less than 25 percent. In interpreting this measure of growth, it must be kept in mind that a very favorable experience in the initial period, leading to a relatively large deposit figure at the end of the third quarter, would tend to increase the difficulty of achieving a high sixth quarter/third quarter ratio. The median increase in deposits during the seventh-through-ninth quarters was 24 percent.

As of December 20, 1963, the median ratio of certificates of deposit-to-total deposits for the 1962 class was 11.7 percent while the mean of the ratio was 14.9 percent. The figures had increased slightly by mid-1964, to 13.2 and 15.0 percent, respectively. Most of the 1962 class did not rely heavily on CD's to achieve deposit growth. The growth rate for loans was slightly greater than that for deposits during both periods.

Organizers of proposed new banks must submit with their charter applications their estimates of the deposits and loans which the bank will achieve during its first three years, if chartered. The organizers face conflicting pressures in making these estimates. The necessity of proving "need" could lead to an upward bias in the estimates. On the other hand, the organizers are aware that the soundness of their estimates is carefully assessed by an examiner in the field. Also, organizers presumably are hesitant about submitting overly-optimistic estimates, since failure to achieve them would reflect adversely on their bank and on their own acumen.

Comparisons of actual deposits and loans after one and two years of operation to projected deposits and loans at those same dates are presented in Table 14 for

Table 12

Comparison of the Distributions of Rates of Return for the 1959 Class of National Banks* in 1961 and the 1962 Class of National Banks† in 1964

Measure	Net Current Operating Earnings to Total Assets‡		Net Income to Total Capital Accounts‡	
	Banks Chartered in 1959 (%)	Banks Chartered in 1962 (%)	Banks Chartered in 1959 (%)	Banks Chartered in 1962 (%)
Upper quartile	1.46	1.27	6.16	5.71
Median	1.14	0.82	3.75	3.45
Lower quartile	0.59	0.39	1.15	0.91
Mean of ratios	1.12	0.76	3.97	2.13
Standard deviation	0.82	0.76	3.72	7.23

* Data include 23 of the 24 newly-organized national banks chartered in 1959. The other bank was absorbed in late 1961.

† Data include 60 of the 62 members of the 1962 class still operating as national banks as of February 1, 1965. One bank converted to a state charter in 1964 and another was declared insolvent on January 22, 1965.

‡ Balance sheet accounts were centered in the respective time periods.

Source: Office of the Comptroller of the Currency.

Table 13

Distributions of Selected Growth Ratios for the 1962 Class of National Banks

Ratio	Total Deposits	Total Loans*
Sixth quarter/Third quarter:†		
Upper quartile	1.86	1.86
Median	1.54	1.64
Lower quartile	1.34	1.39
Mean of ratios	1.64	1.71
Standard deviation	0.46	0.49
Ninth quarter/Sixth quarter:†		
Upper quartile	1.36	1.41
Median	1.24	1.28
Lower quartile	1.11	1.14
Mean of ratios	1.25	1.30
Standard deviation	0.23	0.26

* Net of reserves.

† The ratio, for each of the 64 banks, of total deposits shown on its sixth quarterly Report of Condition after beginning operations to the same item shown on its third quarterly Report of Condition was computed. The same procedure was applied for the loan figures.

‡ The same procedure was used as in first ratio, except that the figures refer to the ninth quarterly and sixth quarterly Reports of Condition respectively. All 64 banks are included.

Source: Office of the Comptroller of the Currency.

Table 14

Distributions of Ratios of Actual Deposits and Loans* to Projected Deposits and Loans† for the 1962 Class of National Banks

Actual to Projected	Number of Banks			
	Deposits		Loans	
	First Year	Second Year	First Year	Second Year
3.00 and over	3	1	10	6
2.75 to 2.99	0	0	4	1
2.50 to 2.74	1	0	1	3
2.25 to 2.49	1	2	4	7
2.00 to 2.24	4	2	6	4
1.75 to 1.99	3	2	6	4
1.50 to 1.74	4	7	5	5
1.25 to 1.49	9	9	7	12
1.00 to 1.24	7	11	10	10
.75 to .99	19	15	7	9
.50 to .74	12	12	3	2
.25 to .49	0	2	0	0
Total	63	63	63	63

* Figures used for actual deposits and loans were those given in the 4th and 8th Reports of Condition of the banks. They thus represent results after some fraction of a quarter less than 4 and 8 full quarters, depending on the date of the bank opening within the first quarter.

† Projections were those contained in charter applications. One application contained no projections.

Source: Office of the Comptroller of the Currency.

the 1962 class.[60] Just over half of the banks exceeded their projected deposits for the first year, some by a very substantial margin. Nineteen of the remaining banks reached deposits of 75 to 100 percent of their projections. At the end of the second year, 34 of 63 banks had exceeded their projected deposits.

More new banks achieved their loan estimates than reached their projected deposits. Fifty-three of 63 banks had exceeded their loan projections at the end of their first year of operation, and 52 of 63 had done so at the end of their second year.

The weighted mean of total assets for the 1962 class had reached $3.8 million at mid-1963, and climbed to $5.2 million as of mid-1964. (See Table 15.) The latter compares with $4.0 million reached by the 1959 class as of June 30, 1961. (See Table 16.) The several measures applied indicate favorable growth for most members of the 1962 class.

D. Balance Sheet Relationships for the 1962 Class

Combined balance sheets for the 64 banks in the 1962 class as of mid-1963 and mid-1964 are presented in Table 15. For purposes of comparison, the combined balance sheet of the 24 banks in the 1959 class as of mid-1961 is presented in Table 16. Certain key relationships between balance sheet accounts for the 1962 class are shown in Table 17.

From mid-1963 to mid-1964 the age-range of the 1962 class moved from "six to 18 months" to "18 to 30 months." The overall growth and the movement away from a relatively overcapitalized position during this period have already been noted. The amount of loans outstanding grew more rapidly than did total assets, moving from 51.8 percent to 61.9 percent of the latter.[61] This relative increase was balanced by a relative decrease in the cash and U.S. government securities accounts combined, from 42.6 percent of total assets to 32.1 percent.

A comparison of Tables 15 and 16 shows that the 1962 class was much more heavily loaned up at mid-1964 than was the 1959 class at mid-1961, the comparable date in the latter group's development. Loans at mid-1961 represented 47.6 percent of total assets of the 1959 class, compared with 61.9 percent for the 1962 class at mid-1964. In fact, loans for the 1962 class at mid-1963 already represented 51.8 percent of assets.

More detail on the relative increase in loans is shown by the distributions of the loan-deposit ratios for the 1962 class. (See Table 17.) The median loan-deposit ratio climbed steadily from 57.81 percent at the end of 1962 to 69.41 percent at mid-1964, as the new banks found loan outlets for their funds. As might be expected, the banks with quite low loan-deposit ratios at the end of 1962 increased these ratios very substantially over the next 18 months, as shown by the rapid movement upward of the lower quartile of the distributions. The second half of 1964 was the first period during which the loan-deposit ratios for the 1962 class declined. The values for the median and both quartiles were lower at the end

[60] The actual deposit and loan figures used were those contained in the fourth and eighth Reports of Condition filed by the banks. Depending on how long each bank had been in operation prior to filing its first report, the figures used show deposits and loans at some point between 9 and 12 months of operation and between 21 and 24 months. The effect is to understate the ratios of actual to projected figures.

[61] Loan figures include federal funds sold, as the latter were not available separately for mid-1963.

Table 15

Combined Balance Sheets of the 1962 Class of National Banks, as of June 29, 1963 and June 30, 1964

Assets	Total, 64 banks, 1963 (thousands of $)	Total, 64 banks, 1964 (thousands of $)	Average per bank, 1963 (thousands of $)	Average per bank, 1964 (thousands of $)	Percent of Total, 1963	Percent of Total, 1964
Cash, balances with other banks, and cash items in process of collection	40,315.3	44,187.9	629.9	690.4	16.5	13.2
U.S. Government obligations, direct and guaranteed (Net of any reserves)	63,731.8	63,053.0	995.8	985.2	26.1	18.9
Obligations of States and political subdivisions (Net of any reserves)	1,215.9	2,428.1	19.0	37.9	.5	.7
Other bonds, notes and debentures (Net of any reserves)	1,725.3	3,156.8	27.0	49.3	.7	.9
Loans and discounts (Net of any reserves) and federal funds sold	126,560.7	206,571.6	1,977.5	3,227.6	51.8	61.9
Fixed assets	8,425.9	11,266.5	131.7	176.0	3.4	3.4
Other assets	2,338.2	2,902.5	36.5	45.4	1.0	.9
Total Assets	244,313.2	333,566.7	3,817.4	5,212.0	100.0	100.0
Liabilities						
Demand deposits of individuals, partnerships, and corporations	82,697.1	109,506.7	1,292.1	1,711.0	33.8	32.8
Time and savings deposits of individuals, partnerships, and corporations	71,179.1	123,437.8	1,112.2	1,928.7	29.1	37.0
Deposits of U.S. Government	11,072.5	8,276.2	173.0	129.3	4.5	2.5
Deposits of states and political subdivisions	25,252.6	34,899.1	394.6	545.3	10.3	10.5
Deposits of banks	8,152.3	3,865.7	127.4	60.4	3.3	1.2
Certified and officers' checks, etc.	2,664.3	3,688.7	41.6	57.6	1.1	1.1
Total deposits	201,018.0	283,674.5	3,140.9	4,432.4	82.3	85.0
Total demand deposits	108,022.1	134,517.4	1,687.8	2,101.8	44.2	40.3
Total time and savings deposits	92,995.8	149,157.0	1,453.1	2,330.6	38.1	44.7
Rediscounts, federal funds purchased and other liabilities for borrowed money	260.0	3,000.0	4.1	46.9	.1	.9
Other liabilities	2,771.4	5,596.8	43.3	87.4	1.1	1.7
Total Liabilities	204,049.5	292,271.2	3,188.2	4,566.7	83.5	87.6
Capital Accounts						
Common stock—Total par value	20,995.0	21,030.0	328.0	328.6	8.5	6.3
Surplus	13,581.8	13,711.0	212.2	214.2	5.5	4.1
Undivided profits	5,543.6	6,313.8	86.6	98.7	2.3	1.9
Reserves	143.4	240.6	2.2	3.8	.1	.1
Total Capital Accounts	40,263.6	41,295.1	629.1	645.3	16.5	12.4
Total Liabilities and Capital Accounts	244,313.2	333,566.7	3,817.4	5,212.0	100.0	100.0

Source: Office of the Comptroller of the Currency.

Table 16

Combined Balance Sheet of the 1959 Class of National Banks as of June 30, 1961

Assets	Total, 24 banks (thousands of $)	Average per bank (thousands of $)	Percent of Total
Cash, balances with other banks, and cash items in process of collection	18,119.9	754.9	18.8
U.S. Government obligations, direct and guaranteed (Net of any reserves)	24,623.7	1,025.9	25.6
Obligations of States and political subdivisions (Net of any reserves)	1,229.3	51.2	1.3
Other bonds, notes, and debentures (Net of any reserves)	2,302.0	95.9	2.4
Loans and discounts (Net of any reserves) and federal funds sold	45,862.5	1,910.9	47.6
Fixed assets	3,365.6	140.2	3.5
Other assets	857.0	35.7	.9
Total Assets	96,360.1	4,015.0	100.0
Liabilities			
Demand deposits of individuals, partnerships, and corporations	42,550.1	1,772.9	44.2
Time and savings deposits of individuals, partnerships, and corporations	24,506.6	1,021.1	25.4
Deposits of U.S. Government	2,655.5	110.6	2.8
Deposits of states and political subdivisions	8,891.7	370.4	9.2
Deposits of banks	2,178.3	90.7	2.3
Certified and officers' checks, etc.	938.2	39.0	1.0
Total deposits	81,720.6	3,405.0	84.8
Total demand deposits	54,155.9	2,256.5	56.2
Total time and savings deposits	27,564.7	1,148.5	28.6
Rediscounts, federal funds purchased and other liabilities for borrowed money	300.0	12.5	.3
Other liabilities	1,748.4	73.4	1.8
Total Liabilities	83,769.1	3,490.4	86.9
Capital Accounts			
Common stock—Total par value	6,590.0	274.5	6.8
Surplus	3,800.0	158.3	3.9
Undivided profits	2,173.9	90.5	2.3
Reserves	27.1	1.1	.1
Total Capital Accounts	12,591.0	524.6	13.1
Total Liabilities and Capital Accounts	96,360.1	4,015.0	100.0

Source: Office of the Comptroller of the Currency.

of 1964 than at mid-year, with the median dropping to 66.25 percent.

The median ratio of time and savings deposits-to-total deposits for the 1962 class moved steadily upward until mid-1964, and then levelled off during the last half of the year. (See Table 17.) While the median ratio was 45.89 percent at mid-1964, total time and savings deposits for all banks in the 1962 class combined surpassed their combined demand deposits by mid-1964, $149.2 million to $134.5 million, as shown in Table 15. It follows that the combined deposits of those new banks with ratios of time and savings deposits-to-total deposits above the median ratio were somewhat larger than the combined deposits of those banks with ratios below the median.

While 52.6 percent of the combined deposits of the 1962 class were time and savings deposits at mid-1964, the figure for the 1959 class at the same point in its development was 33.7 percent. The difference largely reflects changes in the position of all commercial banks in the market for savings between 1961 and 1964, including increases in the maximum interest payable on time and savings deposits. The proportion of time and savings deposits-to-total deposits for all insured commercial banks combined increased from 33.3 percent at the end of 1961 to 40.7 percent at the end of 1963. The median ratio for the 1962 class at the end of 1963 was 42.0 percent, almost identical with the weighted mean of 42.1 percent for all insured commercial banks with deposits of two to five million dollars.[62]

From this review of balance sheet accounts for the 1962 class, two relationships appear most important: the relatively high loan-deposit ratios and the increasing importance of time and savings deposits in the deposit structure. Since high-yielding assets are needed to cover the interest expense incurred on time and savings deposits, the two phenomena are not unrelated. However, the slight decline in average loan-deposit ratios in the second half of 1964 and the levelling off of the ratio of time and savings deposits-to-total deposits during the same period could signal the emergence of more stable relationships for these banks.

E. Quality of Loan Portfolios

The occurrence of substantial losses from loan defaults, with resulting capital impairment, is the greatest threat to the wellbeing of a new bank. We have seen that the desire to reach the "break-even" point quickly places management under pressure to build a sizeable loan portfolio as rapidly as possible. This pressure may be alleviated by participation in, or purchase of, loans held by the major correspondent. It has also been noted that new bank management must contend initially with an adverse selection of would-be borrowers. Consequently, attention must be given to the *quality* of the loan portfolios whose *growth* was discussed above.

National banks must be examined at least three times every two years. National bank examiners carefully evaluate loan portfolios, and "classify" those loans (and other assets) which they deem "substandard," "doubtful" or "loss." The ratio of "classified assets"-to-total capital structure is a standard measure of the quality of a bank's assets and its ability to survive possible losses. Table 18 presents the distribution of this ratio for the 1962 class as of the examinations nearest mid-1963 and mid-1964.

Both the median and the mean of ratios were higher at mid-1964 than at mid-1963. To a considerable extent, this in-

[62] Both figures for insured banks were computed from the Federal Deposit Insurance Corporation, *Annual Report, 1963*, pp. 144-145.

Table 17

Distributions of Selected Balance Sheet Ratios for the 1962 Class of National Banks,* 1962-1964

Date	Total Loans† to Total Deposits (%)	Total Capital Accounts to Total Deposits (%)	Time and Savings Deposits to Total Deposits (%)
December 28, 1962			
Upper quartile	77.92	57.50	39.29
Median	57.81	36.18	30.61
Lower quartile	41.88	25.85	16.38
June 29, 1963			
Upper quartile	75.00	29.86	46.00
Median	62.50	22.25	38.00
Lower quartile	52.50	17.50	26.17
December 20, 1963			
Upper quartile	75.71	23.50	48.11
Median	67.73	18.60	42.00
Lower quartile	58.00	14.33	31.00
June 30, 1964			
Upper quartile	76.67	21.00	51.67
Median	69.41	16.00	45.89
Lower quartile	64.00	12.43	36.00
December 31, 1964			
Upper quartile	73.75	18.00	51.23
Median	66.25	13.75	45.33
Lower quartile	58.75	9.88	34.86

* For December 28, 1962, 61 banks are included; for December 31, 1964, 63 banks; for other dates, all 64 banks.
† Net of reserves.
Source: Office of the Comptroller of the Currency.

Table 18

Ratios of Classified Assets to Total Capital for the 1962 Class, as of Examination Dates Nearest June 30, 1963 and June 30, 1964

Ratios (nearest per cent)	Number of Banks*	
	Examination Date Nearest 6-30-63	Examination Date Nearest 6-30-64
0	30	19
1	8	7
2	6	8
3	3	6
4	1	2
5	3	1
6-8	7	3
9-12	3	6
13-16	1	4
over 16	1	7
	63	63
Median	1 percent	2 percent
Mean of ratios	2.7 percent	6.4 percent

* One national bank chartered in 1962 converted to a state charter in 1964 and is not here included.
Source: Office of the Comptroller of the Currency.

crease is simply a concomitant of the increase in total loans relative to total capital, an increase which manifests the movement of the new banks away from their initially heavy capitalization. The weighted mean ratio of total loans-to-total capital for the 1962 class increased from 3.14 at mid-1963 to 5.00 at mid-1964, a 59 percent increase in the ratio itself. (See loan and capital figures in Table 15.) Since the classified ratio went up by more than this, it is evident that the percentage of total assets classified increased during the year. Several considerations are relevant in putting this increase into proper context.

The classified ratios for mid-1963, reflecting as they do an asset evaluation after only a relatively brief period of operation, are unrealistically low; a number of the initial loans made by the banks had not reached maturity.[63] Even without recourse to standards for comparison, the classified ratios for most of the new banks at mid-1964 appear low in absolute terms. Forty of 63 banks had ratios of classified assets to total capital of less than 3.5 percent; for 52 of these banks the ratio was below 12.5 percent.

A comparison with a broad group of national banks is useful in evaluating the quality of the assets of the 1962 class at mid-1964. Since the weighted average of total loans-to-total capital for the 1962 class was almost exactly 5.0 as of mid-1964, an approximation of the ratio of classified loans (and other classified assets)-to-total loans may be secured by dividing the ratios in Table 18 by five. Thus, the mean of the ratios of classified-to-total loans for the 1962 class at mid-1964 was on the order of 1.3 percent. The mean of the ratios of classified *business* loans-to-total *business* loans for national banks with assets under $5 million which were examined in the second quarter of 1964 was 2.98 percent, while that for national banks with assets of $5-10 million examined in the same period was 2.41 percent. The nature of the classified-business-loans ratio, including its method of computation, is such that it will typically be greater for a given bank than its ratio of total classified loans-to-total loans. However, even after taking this into account, the quality of the assets of the 1962 class at mid-1964, as measured by examiners' classifications, appears to compare favorably with that of a large sample of older national banks in the same size classes.

F. Results of Certain Competitors of 1962 Class Members

The entry of a new bank into a market, other things being equal, should hold aggregate rates of growth and rates of return for the established banks below the levels they would have attained in the absence of entry.[64] However, economic growth in the area served may in fact be sufficient to allow older banks to maintain or even increase their growth rates while a new bank is establishing itself. New bank organizers attempt to seek out such promising growth situations.

The larger the number of banks serving the market entered by a new bank, the smaller will tend to be the impact of the entry on any one bank. Thus, in an effort to ascertain the effect of entry on existing banks, it seems appropriate to concentrate attention on markets which were served by only one or two banks prior to the new entry. Thirteen of the mem-

[63] This may be partially offset by the comprehensiveness of the examinations of all relatively new banks.

[64] The most important qualification relating to rates of return concerns the possibility of more efficient operations by existing banks under the pressure of added competition.

bers of the 1962 class located their offices outside SMSAs at sites with only one or two commercial banks within 15 miles. (See Table 10 above.) After examination of each of these cases, eight were retained for the test of impact-of-entry.[65] These eight cases yielded five banks which had been the sole bank in their market areas prior to the new bank entry, and five banks which had been one of two banks in their market areas.[66] The number of previously-existing banks tested is admittedly so small that the results can only be suggestive.

The results for the previously-existing banks are summarized in Table 19. Throughout the 1960-1963 period, the median rates of return for these banks—both net income-to-total capital and net current operating earnings-to-total assets—were well above the combined rates for all insured commercial banks in the same size class. The quite favorable showing of the existing banks was presumably an important factor in the organizers' decisions to apply for new bank charters. The median ratio of net income-to-total capital for the five "single" banks[67] rose from 11.3 percent in 1961 to 15.5 percent in 1962. However, the median fell to 10.0 percent in 1963, the first full year of operation by the new rivals. In fact, the ratio was smaller in 1963 than in 1962 for four of the five single banks. For all but one, however, it remained well above the average for all insured banks in the same deposit class.

The five paired banks show a different picture. Their median ratio of net income-to-total capital increased from 11.7 percent in 1962 to 14.6 percent in 1963. The ratio increased for three of the banks and fell slightly for two. For four of the banks it remained well above the average for all insured banks of the same deposit class, and equalled the latter figure for the fifth.

While the median ratio of net current operating earnings-to-total assets decreased slightly for the single banks and increased slightly for the paired banks in 1963, the individual results were mixed. Among the single banks, the ratio increased for one bank, decreased for one, and remained virtually unchanged for three. The paired banks showed two increases, two decreases, and one unchanged. The ratio for each of the ten banks remained above the average for all insured commercial banks in the same deposit class.

At the end of 1961, the median loan-deposit ratio for the single banks was 33.5 percent, compared to an average of 47.0 percent for banks of the same size throughout the country. The gap had narrowed by the end of 1963, with the two figures then 46.1 percent and 51.5 percent, respectively. The increase for the paired banks was even greater; their median ratio, which had been well below the all-bank figure at the end of 1961, had surpassed the latter by the end of 1963.

The increase in loan-deposit ratios occurred during a period when an additional competitor for each of the ten banks was establishing itself. To the ex-

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[65] In some cases, the existing bank or banks were branches, and branch data were not available. In others, the existing banks were located in towns ten to fifteen miles from the new banks, in circumstances that indicated minimal impact from the latter.

Of the eight members of the 1962 class whose competitors were studied, four had a ratio of net income-to-total capital in 1963 above the median for the 1962 class.

[66] One of the two banks in one area could not be used for a test of entry impact since it had been established only shortly before the member of the 1962 class opened for business.

[67] The five previously-existing banks which had been the only banks in their respective markets, prior to entry of a new bank in 1962, will be referred to as "single" banks. The five which were one of two banks in their respective markets prior to 1962 will be referred to as "paired" banks.

Table 19

Selected Ratios for Banks Operating in One-Bank and Two-Bank Markets Prior to Entry in 1962 of New Bank, 1960-1963

Ratios*	1960 %	1961 %	1962 %	1963 %
Net income to total capital:				
Median of 5 single banks	11.4	11.3	15.5	10.0
Median of 5 paired banks†	16.4	10.1	11.7	14.6
All insured banks, $10-25 million deposits‡	9.6	8.4	8.1	7.8
Net current operating earnings to total assets:				
Median of 5 single banks	1.8	1.6	1.7	1.5
Median of 5 paired banks	2.3	2.6	2.2	2.3
All insured banks, $10-25 million deposits	1.3	1.1	1.1	1.1
Total loans to total deposits:§				
Median of 5 single banks	34.6	33.5	44.6	46.1
Median of 5 paired banks	45.0	40.9	50.5	55.2
All insured banks, $10-25 million deposits	46.9	47.0	49.0	51.5
Loan income to total loans:				
Median of 5 single banks	5.9	6.1	6.8	6.5
Median of 5 paired banks	7.7	7.8	7.5	8.0
All insured banks, $10-25 million deposits	6.1	6.1	6.1	6.1
Interest paid to total time and savings deposits:				
Median of 5 single banks	2.0	2.4	2.9	3.1
Median of 5 paired banks	1.8	1.9	1.9	2.6
All insured banks, $10-25 million deposits	2.4	2.5	2.7	3.0
Service charges to total demand deposits:				
Median of 5 single banks	0.5	0.5	0.6	0.7
Median of 5 paired banks	0.7	0.5	0.8	0.9
All insured banks, $10-25 million deposits	0.6	0.7	0.7	0.7

* Balance sheet accounts were centered in each period.

† One paired bank was excluded because it began operations only shortly before the 1962 class member opened.

‡ Most of the 10 banks were within or close to this size range.

§ As of the last call date of each year.

Source: Individual bank data from Reports of Condition and Reports of Income and Dividends from the Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation. Data for all insured banks from FDIC, **Annual Reports,** 1960 through 1963.

tent that the ratios increased relatively more than did the all-bank ratios during the same period, two factors may have been at work: (1) entry may have held down the rate of deposit growth for the previously-existing banks; (2) the latter banks may have been willing to grant more loans than heretofore as they faced the competition of an additional credit source.

The median increase in deposits for the single banks was nine percent from December 1959 to December 1961, and five percent from December 1961 to December 1963. Two of the five single banks had higher rates of deposit growth in the later period than in the earlier, and four of the five registered an absolute increase in deposits in the later period. For the paired banks, four of the five had higher rates of deposit growth in 1962-1963 than in 1960-1961. Thus, it appears that the deposit growth of the single banks may have been more affected by new bank entry than was true for the paired banks. However, only two of the ten banks, one in each category, suffered an absolute decline in deposits with the advent of a new rival.

The picture of loan growth was even more favorable for the previously-existing banks. All of the paired banks and four

of the five single banks enjoyed a higher rate of loan growth in 1962-1963 than in 1960-1961.

Of the three performance ratios shown at the bottom of Table 19, the movement of the ratio of interest paid on time and savings deposits-to-total time and savings deposits appears most noteworthy. The median ratio for both the single and the paired banks was below the average ratio for all insured banks of the same deposit class in 1960 and 1961. The median ratio for the single banks exceeded the all-bank figure in 1962, and remained above the latter in 1963. The median ratio for the paired banks moved from 1.9 percent in 1962 to 2.6 percent in 1963. While these data are insufficient to prove any hypothesis, they are at least consistent with the hypothesis that the injection of additional competition led to somewhat higher interest rates for savings depositors.

In summary, the data for the previously-existing banks show the following: (1) relatively high rates of return, relatively low loan-deposit ratios, and relatively low effective interest on savings deposits characterized the operations of these somewhat isolated banks prior to the entry of a member of the 1962 class; (2) with the advent of the new bank, the median rates of return fell for the single banks but remained above the average for all insured banks of the same deposit class; (3) the median rates of return increased for the paired banks after entry of a 1962 class member; (4) the loan-deposit ratios and the effective interest on time and savings deposits for both the single and paired banks increased more than did the all-bank figures in the period following new bank entry; (5) total demand for banking services grew sufficiently to allow six of the ten older banks to achieve higher rates of deposit growth, and nine of the ten to achieve higher rates of loan growth, in the period following new bank entry than in the period prior to entry. The data seem to indicate that the organizers of most of the eight new banks under discussion chose market areas with good growth potentials.

VI. *Results for Selected Subgroups of the 1962 Class*

Having examined the results for the 1962 class as a whole, we turn now to results for a few selected subgroups of the class. Since the whole class included only 64 banks, the subgroups, especially those divided on the basis of two or more criteria, are quite small. A number of tests for statistical significance of differences in subgroup results were run, but most of these, including all but one for rates of return, yielded negative results.[68] In other words, little or no statistical basis was found for rejecting the hypothesis that each of the selected subgroups came from the same statistical population of new banks.[69] In certain instances, however, the pattern of actual differences in results appears sufficiently consistent to merit attention; in other instances, the occurrence of quite similar results for subgroups may itself be noteworthy. At a minimum, the subgroup results help to complete the picture for the 1962 class.

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[68] Tests applied included the analysis of variance for samples of unequal size, analysis of variance by ranks, and t-test for significance of difference between sample means. The .05 level of confidence was used.

[69] Differences must be quite large to yield statistically significant results when samples are small and variability within samples is large, as was the case here. When small samples are used, one runs the risk of accepting the null hypothesis when analysis of larger samples would lead to its rejection. Since the comparison of subgroup results was not the major purpose of this study, the choice of the new-bank sample could not be primarily oriented toward avoidance of the risk noted.

A. Rates of Return

The criteria used for division of the 1962 class into subgroups were the branch law of the state, the number of initial commercial bank competitors within a stated radius of the new bank site, and location within or outside an SMSA. A triple-criterion break-down allows comparisons between subgroups with two of the three criteria or independent variables held constant; however, the number of observations in each cell becomes quite small. For each of the three criteria in turn, results for subgroups with one or more other criteria held constant are first presented. These are followed by results for subgroups classified only by the criterion under study.

1. *Number of nearby commercial bank competitors.*

For the purposes of classifying the members of the 1962 class on the basis of number of nearby competitors, the new banks were divided into two groups: those with zero or one commercial bank competitors within a stated radius, and those with two or more competitors. (See Tables 5 and 10 for detail on number of competitors.) The 1962 class members with fewer nearby competitors consistently enjoyed higher rates of return than those with more competitors, whether only one or both of the other criteria were held constant. The conformity of this pattern to theoretical expectations may make the finding economically significant, even in the absence of statistical significance.

Twenty-six members of the 1962 class were located within SMSAs in unit banking states. Of these 26, 15 had zero or one commercial bank competitors within three miles of their sites at the time their charter applications were processed, while the other 11 had two or more competitors within the same radius. In 1963, the 15 with fewer nearby competitors enjoyed higher ratios of net income-to-total capital than the 11 with more competitors; the respective medians were 2.60 and 1.20 percent, and the respective means of ratios were 3.85 and .44 percent. (See Table 20.) Sixteen members of the 1962 class were located within SMSAs in branch banking states. For these banks, the mean of the ratios was again higher for the six with fewer nearby competitors than for the ten with more competitors. The reversal here for the respective medians was the only exception found to the pattern noted above.

Summary One of Table 20 merges "within SMSA" and "outside SMSA" banks, and thus allows two comparisons of the effect of the number of competitors, with branch law held constant in each. The median and mean ratios of 1963 net income-to-total capital were higher, in both unit and branch banking states, for the members of the 1962 class with zero or one nearby competitors than for those with two or more nearby competitors.

Table 21 provides evidence that the same pattern prevailed in 1962 and 1964 as was revealed for 1963 in Table 20. Four comparisons are presented, with location within or outside SMSA held constant: results for 1962, 1963, and the first six months of 1964 [70] for the banks within

[70] The full-year 1964 data became available too late for use in the *subgroup* analyses. The 1964 ratios presented in Part VI are based on six-months figures for 50 members of the 1962 class. These 50 submitted special mid-year Reports of Income and Dividends. Thus, the 1964 data used in this Part are subject to three qualifications: (1) only 50 of the 64 banks are included; (2) the ratios are based on half-year figures converted to an annual basis; (3) the degree of comparability with data for 1962 and 1963 may be lessened by variations among banks in the treatment of accounting problems encountered in the preparation of special mid-year reports.

Table 20

Average Ratios of 1963 Net Income to Total Capital for 1962 Class Subgroups, Classified by Branch Law, Number of Competitors and Location Within or Outside SMSA

Branch Law—Number of Competitors*	Within SMSA %	Outside SMSA %	Summary One† %
Unit banking states:			
0 or 1 competitor:	15 banks	2 banks‡	17 banks
Median	2.60	—	2.60
Mean of ratios	3.85	—	3.63
2 or more competitors:	11 banks	10 banks	21 banks
Median	1.20	2.35	1.40
Mean of ratios	0.44	3.31	1.80
Branch banking states:			
0 or 1 competitor:	6 banks	3 banks‡	9 banks
Median	0.00	—	2.64
Mean of ratios	0.63	—	1.74
2 or more competitors:	10 banks	7 banks	17 banks
Median	1.10	1.11	1.10
Mean of ratios	−1.39	2.16	0.07
Summary Two§	42 banks	22 banks	64 banks
Median	1.36	2.19	1.71
Mean of ratios	1.25	2.91	1.82

* For 1962 class members located within SMSA, number of competitors represents number of commercial banks located within three miles of new bank site at the time charter application was processed. For those located outside SMSA, the radius used is 15 miles. See Table 10 for detail.

† Means and medians are given for the combined cells.

‡ Means and medians are given only for cells with four or more banks.

§ Figures correspond to those drawn from the frequency distributions presented in Tables 11 and 23.

Source: Office of the Comptroller of the Currency.

SMSAs, and the 1963 results for the banks outside SMSAs. In each of these four cases, both the median and mean of the ratios of net income-to-total capital are higher for the new banks with less than two competitors within the stated radius than for those with two or more competitors.

2. *Branch law of state where located.*

With number of competitors and location within or outside SMSAs held constant, the members of the 1962 class located in unit banking states had higher rates of return than those located in branch banking states in 1963. All three comparisons presented in Table 20, two within SMSAs and one outside SMSAs, show this result for both the medians and means of the ratios of net income-to-total capital.[71]

The data in Table 22, however, indicate that this result for the 1962 class may have shifted over time. Here the banks in the class are divided on the basis of

[71] Summary One of Table 20 shows that when those five banks classified in the two cells with less than four banks each are included with the other banks having zero or one competitors, the median ratio for the "zero or one competitor" category becomes slightly higher for the banks located in branching states, 2.64 percent to 2.60 percent. The mean of the ratios remains considerably higher for the new banks in unit banking states, 3.63 percent to 1.74 percent. For the new banks with two or more competitors, both the median and mean of the ratios are higher for the banks in unit banking states than for those in branch banking states.

Table 21

Average Ratios of Net Income to Total Capital for 1962 Class Subgroups, Classified by Location Within or Outside SMSA and by Number of Competitors, 1962-1964

Year	Within SMSA*		Outside SMSA†	
	0 or 1 Competitor	2 or more Competitors	0 or 1 Competitor	2 or more Competitors
1962:‡				
	8 banks	6 banks	3 banks§	4 banks
Median	2.30	−1.85	—	−2.45
Mean of ratios	1.45	−1.67	—	0.75
1963:				
	21 banks	21 banks	5 banks	17 banks
Median	2.58	1.10	2.64	2.00
Mean of ratios	2.93	−0.43	3.16	2.84
1964:Δ				
	15 banks	16 banks	3 banks§	16 banks
Median	4.20	4.00	—	5.10
Mean of ratios	5.96	3.33	—	4.41

* Number of "competitors" represents number of commercial banks located within three miles of new bank site at the time charter application was processed. See Table 10 for detail.
† Same as note 1, except radius used was 15 miles.
‡ The 1962 rates are understated, in that they reflect operations for less than 12 months.
§ Means and medians are given only for cells with four or more banks.
Δ Data for 1964 are for the first six months, converted to an annual basis.
Source: Office of the Comptroller of the Currency.

a single criterion, the branch law of the state. In both 1962 and 1963, the median and the mean of the ratios of net income-to-total capital were higher for the banks located in unit banking states, but the gap narrowed in 1963. In the first six months of 1964, the median and mean of these ratios for the banks in branching states surpassed those for the banks in unit banking states.

A quite similar picture emerges in comparing the average ratios of net current operating earnings-to-total assets for the unit-branch subgroups. In 1962, both the median and mean for the banks in unit banking states were well above those for the banks in branching states. In 1963, the mean remained higher for the former group, but the difference had sharply decreased, while the median for the group in branch banking states was slightly higher. In the first six months of 1964, the means for the two groups were virtually the same, while the median for the banks in branching states was considerably higher than that for the unit banking group.

One factor which could partially explain the better *initial* showing of new banks in unit banking states is the higher proportion therein of new banks associated in some way with established banks. The results of one test were not inconsistent with this hypothesis. Of the 33 members of the 1962 class that had some association with an existing bank, the 26 with what appeared to be the closest association were classified as "associated" new banks.[72] The rates of return of these "as-

[72] The seven banks eliminated from the associated group had such weak "associations" that it seemed doubtful the established associate would be willing to provide significant aid in any form to the new bank.

Table 22

Distributions of Rates of Return for 1962 Class Subgroups, Classified by Branch Law of State where Located, 1962-1964

Year	Net Current Operating Earnings to Total Assets* %		Net Income to Total Capital Accounts* %	
	Branch States	Unit States	Branch States	Unit States
1962:†				
Upper quartile	0.19	1.50	−0.16	5.83
Median	−0.86	1.00	−2.07	2.50
Lower quartile	−1.37	−0.50	−4.75	−2.50
Mean of ratios	−1.03‡	0.59‡	−3.66‡	1.88‡
Standard deviation	1.66	1.49	5.14	5.98
1963:§				
Upper quartile	1.15	1.39	4.58	4.87
Median	0.58	0.45	1.39	2.50
Lower quartile	−0.11	0.02	−3.11	−0.41
Mean of ratios	0.43	0.60	0.65	2.62
Standard deviation	1.33	1.47	6.38	6.22
1964:Δ				
Upper quartile	1.41	1.30	8.44	6.87
Median	1.04	0.66	5.25	3.25
Lower quartile	0.37	0.23	1.63	0.70
Mean of ratios	0.81	0.82	4.76	4.61
Standard deviation	0.94	0.77	6.81	7.72

* All balance sheet accounts were centered in their respective periods.

† There were 21 national banks in operation, of those chartered during 1962, as of June 30, 1962. Only these are included in the 1962 figures, distributed as follows: branch banking states, 9; unit banking states, 12. The 1962 rates are understated in that they reflect operations for less than 12 months.

‡ Difference between means is significant at .05 level.

§ Includes all 64 banks distributed as follows: branch banking states, 26; unit banking states, 38.

Δ Data refer to first six months of 1964, converted to an annual basis. Data include 50 banks, distributed as follows: branch banking states, 21; unit banking states, 29.

Source: Office of the Comptroller of the Currency.

sociated" banks were compared with those of the other 38 members of the 1962 class, the "non-associated." Both the median and mean of the ratios of net income-to-capital were higher in 1962 for the associated banks than for the non-associated.[73]

3. *Location within and outside SMSAs.*

Two comparisons of the ratios of 1963 net income-to-total capital for 1962 class subgroups located within and outside SMSAs, with state branch law and number of nearby competitors held constant, are afforded in Table 20. In both instances, the medians and means of ratios are higher for the banks located outside SMSAs.[74] Similarly, when only the number of competitors was held constant, the outside-SMSA subgroup held the advantage in both 1963 and 1964; the 1962 results were mixed. (See Table 21.)

In Table 23, the 1962-1964 distribu-

[73] For the associated banks, the median and mean were 1.75 and 1.09 percent, respectively. For the non-associated banks they were −.42 and −.88 percent, respectively. In 1963, the order was reversed, a result for which we advance no hypothesis.

[74] A qualification should be noted for the statement that the number of nearby competitors was held constant. For new banks located within SMSAs, the number of commercial banks located within three miles was used, while for

Table 23

Distributions of Rates of Return for 1962 Class Subgroups, Classified by Location Within or Outside SMSA, 1962-1964

Year	Net Current Operating Earnings to Total Assets* %		Net Income to Total Capital Accounts* %	
	Within SMSA	Outside SMSA	Within SMSA	Outside SMSA
1962:†				
Upper quartile	1.22	0.31	4.42	0.62
Median	0.66	−0.75	1.25	−4.36
Lower quartile	−0.81	−1.30	−2.09	−6.55
Mean of ratios	−0.08	−0.16	0.11	−1.70
Standard deviation	1.76	1.82	5.18	8.28
1963:‡				
Upper quartile	1.29	1.21	4.46	5.63
Median	0.50	0.50	1.36	2.19
Lower quartile	−0.14	0.16	−3.39	0.47
Mean of ratios	0.47	0.65	1.25	2.91
Standard deviation	1.45	1.35	6.65	5.59
1964:§				
Upper quartile	1.32	1.43	8.33	6.75
Median	0.72	0.95	3.44	4.37
Lower quartile	0.30	0.45	0.83	1.56
Mean of ratios	0.78	0.88	4.60	4.79
Standard deviation	0.94	0.66	8.45	5.04

* All balance sheet accounts were centered in their respective periods.

† There were 21 national banks in operation, of those chartered during 1962, as of June 30, 1962. Only these are included in the 1962 figures, distributed as follows: within SMSA, 14; outside SMSA, 7. The 1962 rates are understated, in that they reflect operations for less than 12 months.

‡ Includes all 64 banks, distributed as follows: within SMSA, 42; outside SMSA, 22.

§ Data refer to first six months of 1964, converted to an annual basis. Data include 50 banks, distributed as follows: within SMSA, 31; outside SMSA, 19.

Source: Office of the Comptroller of the Currency.

tions of two rates of return are presented for 1962 class subgroups classified by only the criterion of location within or outside SMSAs. The 1962 figures, for the 21 banks in operation by mid-year, reveal a somewhat more favorable showing for the banks located within SMSAs. However, this is consistently reversed in 1963 and the first six months of 1964. Thus, when no account is taken of other factors, the rates of return of the banks located outside SMSAs were initially lower than those of their urban counterparts, but then moved ahead of the rates of the latter group.

B. Rates of Growth

The rates of growth of the 1962 class members located in branch banking states have been slightly higher than those of the banks located in unit banking states. For example, the median increases in deposits during the fourth-through-sixth quarters of operation were 60 percent for the 26 banks located in branch banking states and 52 percent for the 38 banks located in unit banking states.[75] The me-

those located outside SMSAs, a 15-mile radius was applied. While use of different radii for the two subgroups can be justified, an arbitrary judgment is unavoidable in deciding what difference will best reflect comparable competitive situations.

[75] The basis of the computation was identical to that described in Table 13 for the entire class.

dian figures for deposit growth during the seventh-through-ninth quarters of operation were 32 and 21 percent, respectively.

Using the gross regional classification first described in Table 5, the median increase in fourth-through-sixth quarter deposits was 73 percent for the new banks in the North, 58 percent for those in the West, and 44 percent for those in the South. During the seventh-through-ninth quarters, the banks in the North maintained their lead in rate of deposit growth, with a median increase of 28 percent; the comparable figures were 11 percent for the new banks in the West, and 26 percent for those in the South.

C. Loan-Deposit Ratios

The median loan-deposit ratio of the 1962 class members located in branch banking states was 72.9 percent at mid-1964, while the figure for those in unit banking states was 67.3 percent.[76]. The latter group has had the lower median loan-deposit ratio since mid-1963.

At the end of 1962, the median and mean loan-deposit ratios were sharply higher for the 1962 class subgroup located within SMSAs than for the subgroup located outside SMSAs. However, from that time to mid-1964, there was very little difference between the average figures for the two subgroups.

Again using the gross regional classification, the median loan-deposit ratio at mid-1964 was 73.5 percent for the members of the 1962 class located in the West, 69.1 percent for those in the North, and 67.2 percent for those in the South.

VII. *New Entry and the Consumer*

The analysis in Part II indicated that public controls over bank entry serve the public interest when they are directed toward attaining adequate competition in banking markets while reducing the likelihood of bank failures attributable to entry. If entry controls are so implemented that these goals are substantially achieved, then virtually all of the other effects of new bank entry are beneficial from the standpoint of bank customers. A discussion of these effects is presented in this section.

A. The Structure Dimension of Performance

The entry of a new bank brings certain automatic benefits to buyers of banking products and services, and is likely to yield other benefits. These benefits, which follow *directly* from the presence of a new institution operating in a new banking office, relate to the "structure dimension of performance."

1. *Added convenience.*

A new banking office inevitably makes access to banking facilities more convenient for some segment of the banking public.[77] Coupled with this built-in benefit is the possibility that new banks will use the extension of banking hours as a competitive weapon. Table 24 presents data on the banking hours of the 1962 class of new banks.

The median number of head-office banking hours per week, excluding hours when only a drive-in facility was open, was 31.3 in 1964 for 53 of the members of the 1962 class. A 10 a.m. - 3 p.m. bank-

[76] The difference between the respective means of ratios, 73.5 percent and 67.3 percent, was significant at the .05 level.

[77] The same point holds, of course, for each branch added by a bank. Twenty-six of the 64 members of the 1962 class were located in branch banking states. Of these 26, four operated three offices and six operated two offices as of January 15, 1965. At the same date, five of the 26 had applications pending for one additional office, and one for two additional offices.

Table 24
Distribution of the 1962 Class by Banking Hours per Week, 1964

Measure	Head Office Hours, Excluding Drive-in*	Head Office Hours, Including Drive-in†
Upper quartile	35.3	50.5
Median	31.3	45.5
Lower quartile	28.2	38.5
Mean	31.4	44.7

* Fifty-three banks included.
† Twenty-eight banks, all with drive-in facilities, are included.
Source: Office of the Comptroller of the Currency.

ing period each weekday yields 25 hours per week, while extension to a 9 a.m. - 3 p.m. day gives a 30-hour total. Only two of the 53 banks had head offices open for business less than 25 hours per week. One-fourth of the banks offered over 35 hours of full-service banking per week at their head offices. Forty-seven of the 53 banks offered full-service banking one or more hours outside the 9 a.m. - 5 p.m. weekday time bloc. The mean number of such "extra" hours made available each week by these 47 banks was 2.9. These extra hours were most commonly made available on Friday evenings and Saturday mornings.[78]

With drive-in hours included, the median number of hours per week during which at least limited service was available was 45.5 hours for a group of 28 members of the 1962 class with drive-in facilities. Only three banks in this group offered fewer than 35 hours per week.

In banking hours, as in most aspects of bank service to the public, consumer benefits of new entry relate also to post-entry changes in the services of older banks. Numerous instances have occurred of the extension of hours by older banks, following the lead of a new bank.[79] In one city, the mere announcement of extended hours by a new bank, well before its opening, led to a pronounced extension of banking hours by a number of existing banks.

If all banks in a market area extend their hours identically at approximately the same time, none gains a competitive advantage. While consumers of banking services obviously benefit, the net effect

[78] A recent study concludes that while total hours are not affected by bank size, the distribution of hours through the week is affected. "[M]ore often smaller banks are open more days in the week" while "more frequently larger banks remain open after 5 p.m. and they are less likely to close earlier." See *A Study of Selected Banking Services by Bank Size, Structure, and Location*, Subcommittee on Domestic Finance, Committee on Banking and Currency, House of Representatives, 88th Congress, Washington, D. C.: U.S.G.P.O., 1964, p. 18. The data on banking hours in Table 24 are not directly comparable with those presented in the study cited because of different treatments of limited-service hours.

[79] In one case, for example, the sole bank in a market had been open from 9 a.m. to 2 p.m. Monday through Friday, and 4-6 p.m. on Friday evening. The new entrant announced it would be open from 9 a.m. to 3 p.m. on weekdays and 9 a.m. to noon on Saturdays. The older bank then expanded its hours to 9 a.m.-3 p.m. on weekdays, retained its 4-6 p.m. hours on Friday and added 9 a.m.-1 p.m. Saturday hours.

Technological advances in recent years have sharply reduced the time required to keep bank records current. As a result, extended banking hours have become more feasible from a technical standpoint. The additional operating expenses entailed must still be weighed by bank management against anticipated advantages for the bank from the extension.

for each of the banks is likely to be simply an increase in operating expenses. In markets served by only a few banks, oligopolistic rationality may therefore lead to a continuation of limited hours.[80] It is in such a setting that an announcement of extended hours by a new bank may considerably alter the banking habits of an area.

2. *Increase in alternative sources of supply.*

The entry of a new bank provides all banking customers with an additional source of banking services and products. While this in itself represents a favorable development for customers, the resulting public benefits are, in one way or another, related to added convenience and to the likelihood of increased competition. For example, entry by a new bank into a one-bank area may lead the older bank to display a friendlier attitude toward customers.[81] This is an aspect of non-price competition.

3. *Broadening of product and service lines available.*

Entry of a new bank may lead to the offering of certain banking products and services not previously available. Even more likely is an increase in the actual availability of a product or service already nominally offered by the existing banks. When these benefits are of importance to bank customers, the older banks may be forced to follow the lead of the new bank. The sharp increase in the loan-deposit ratios of ten previously-existing banks serving eight markets entered by members of the 1962 class (See Table 19) may in part reflect this sort of situation.

In general, the smaller the number of banks serving a market entered by a new bank, the more likely it is that entry will result in some broadening of banking product and service lines offered, or some increase in the actual availability of one or more of these lines, or both.

B. Prices of Banking Services and Products

In evaluating new-bank performance ratios, which in turn are related to the prices of banking services and products, it must be kept in mind that the immediate competitive effect of a new bank is quite unlikely to be adverse for the banking public; if entry affects the availability or the prices of banking services and products, the effects should be favorable for customers.

1. *Loan rates.*

Summary measures of the ratios of loan income-to-total loans for the 1962 class are given in Table 25. While this ratio gives the effective rate for a given bank on all loans combined, temporal or inter-bank comparisons of the ratio do not reveal rate differences for comparable loans. A bank's loan-mix, as between high-yield and low-yield paper, is the principal determinant of its ratio of loan income-to-loans. Nor does the occurrence of a higher ratio for one bank than for another provide a basis for comparing bank profitability, for two reasons: (1) high-yield loans are typically smaller and more risky than low-yield loans and, thus, are more expensive to administer and subject to greater losses; (2) since bank loans typically yield more than do bank investments, a low loan-deposit ratio will diminish the earnings impact of a high loan income-to-loans ratio.

[80] While any one bank would benefit if it could extend its hours without being matched by rivals, each bank's management realizes that failure of its rivals to follow is unlikely.

[81] See cases below.

Table 25

Distributions of Selected Performance Ratios for the 1962 Class of National Banks, 1963-1964

Year	Income on Loans To Total Loans* (%)	Interest Paid To Time and Savings Deposits* (%)	Service Charges To Total Demand Deposits* (%)
1963:†			
Upper quartile	10.00	3.60	1.58
Median	7.43	3.25	0.96
Lower quartile	5.90	2.65	0.45
Mean of ratios	7.68	3.00	1.08
Standard deviation	3.14	0.89	0.84
Weighted mean, all insured banks with $2-5 million in deposits	6.26	2.91	0.48
Weighted mean, all insured banks with $5-10 million in deposits	6.24	2.94	0.62
1964:‡			
Upper quartile	8.43	3.65	1.96
Median	7.36	3.39	1.45
Lower quartile	6.41	2.91	0.78
Mean of ratios	7.38	3.28	1.56
Standard deviation	1.16	0.56	1.16

* All balance sheet accounts were centered in their respective periods. Loans are net of reserves.
† Includes all 64 banks.
‡ Data include 60 of the 62 members of the 1962 class still operating as national banks as of February 1, 1965. One bank converted to a state charter in 1964 and another was declared insolvent on January 22, 1965.
Sources: Office of the Comptroller of the Currency for data on the 1962 class. Ratios for all insured banks from FDIC, **Annual Report, 1963,** p. 163.

Both the median and mean of ratios of loan income-to-loans for the 1962 class were higher in 1963 than was the weighted mean of the same ratio for all insured banks of the same size class. While the 1964 figure for all insured banks was not available at this writing, there is little reason to doubt that the 1964 average figures shown for the 1962 class remained above the all-bank figure. However, the 1964 decrease in the values of the upper quartile, median, and mean indicates that the 1962 class is moving closer toward the position of the older banks of the same size.

An increase in the ratios of loan income-to-loans for banks in a given market is not necessarily inconsistent with increased competition in lending activity. The banks already operating in a market prior to injection of added competition may, for example, have discouraged applications for consumer installment loans, construction loans, or loans to very small businesses. Such near non-availability of certain types of bank credit at any price is more likely to have existed in one- or two-bank towns selected for entry by new bank organizers than elsewhere.

The forte of a new bank is its ability to provide flexible and personalized service to its individual and small business customers. Thus, it is natural for a new bank to specialize in consumer and small business loans, especially if a credit void previously existed. These loans are relatively high-yielding, a function of the administrative costs involved and the risk entailed.[82]

[82] To some degree, the new banks' ratios of loan income-to-loans reflect the adverse selection of potential borrowers faced initially by these institutions. When credit is extended to a borrower whose application has been rejected by other banks, relatively high interest may be charged.

Once a new bank begins to emphasize this type of credit, older banks must, in some degree, follow suit in order to retain the other banking business of their customers. Of the ten previously-existing banks examined in Part V, six had higher ratios of loan income-to-loans in 1963 than in 1962 (after entry by a member of the 1962 class) and a seventh had the same ratio in the two years. Since new competition is not likely to produce higher rates on particular types of loans, the increase is likely to have resulted from greater emphasis on consumer and small business loans.[83]

In summary, four of our findings are indicators of probable increased availability of certain kinds of credit after entry of a new bank: (1) the relatively high ratios of loan income-to-loans for new banks; (2) the increase in the same ratio for a number of older banks after market entry by a new bank; (3) the relatively high loan-deposit ratios of new banks; and (4) the increase in loan-deposit ratios of a number of older banks after new bank entry.

Subgroup comparisons. The median and mean ratios of loan income-to-loans were somewhat higher in both 1963 and the first half of 1964 for the members of the 1962 class located in unit banking states than for those located in branch states, though the difference narrowed in the later period.[84] The means of the same ratio were nearly identical for the members of the 1962 class located within SMSAs and for those located outside SMSAs in both 1963 and the first half of 1964, though the dispersion was somewhat greater for the former subgroup. During the same periods, the median ratio of loan income-to-loans was highest for the new banks located in the West, next highest for those located in the South, and lowest for those in the North.[85] Since 45 of the 64 members of the 1962 class were located in the West and South, the geographical distribution exerted some upward influence on the average ratios for the whole class.

2. *Interest paid on time and savings deposits.*

An increase in the interest paid on time and savings deposits, other things being equal, represents a benefit for depositors. Both the median and mean of the ratios of interest paid on time and savings deposits-to-total time and savings deposits for the 1962 class were slightly higher in 1963 than the weighted mean for all insured banks in the same size class. (See Table 25.) We have seen that the most difficult task of a new bank is to secure adequate deposits. One device is to offer a rate above that of competitors, where there is latitude under the permissible maximum. The deposit gain for the new bank from this action will depend on the period which elapses before the rate is matched by competitors.[86]

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[83] The movement of specific loan rates in a number of markets after entry of new banks is worthy of study. In Section D below, several cases illustrating the impact of entry are presented, but an examination of the question is beyond the scope of this study. The question is of interest to economists, since it concerns the effects of changes in market structure from monopoly to duopoly, or from duopoly to triopoly.

[84] As was true of subgroup data in Part VI, the subgroup data here are for the first six months of 1964, converted to an annual basis.

[85] See table 5, note § for regional classification.

[86] Until the November 1964 increase in maximum legal rates, commercial banks were severely hampered in competing with other financial institutions for savings. Thus, 1962 class members that faced competition from savings and loan associations could secure only a quite limited expansion of savings deposits by paying rates above those paid by commercial bank rivals.

Table 26

Distributions of the Ratio of Interest Paid on Time and Savings Deposits to Total Time and Savings Deposits for 1962 Class Subgroups, 1963-1964

Year	Interest Paid to Time and Savings Deposits* (%)						
	Branch States	Unit States	Within SMSA	Outside SMSA	Region		
					North	South	West
1963:‡							
Upper quartile	3.62	3.58	3.67	3.42	3.52	3.48	3.71
Median	3.33	3.17	3.32	3.08	2.89	3.20	3.53
Lower quartile	2.81	2.53	2.72	2.38	2.55	2.64	3.19
Mean of ratios	3.15	2.94	3.16	2.76	2.88	3.03	3.20
Standard deviation	0.80	0.98	0.79	1.10	0.87	0.88	1.04
1964:§							
Upper quartile	3.81	3.56	3.64	3.69	3.85	3.43	3.87
Median	3.46	3.18	3.27	3.31	3.38	3.18	3.63
Lower quartile	2.56	2.85	2.84	2.69	2.65	2.81	3.13
Mean of ratios	3.15	3.15	3.12	3.19	3.22	2.97	3.39
Standard deviation	0.92	0.52	0.79	0.63	0.71	0.75	0.68

* Time and savings deposit figures were centered in their respective periods.

† Regional classification is given in note § of Table 5.

‡ Includes all 64 banks in each classification, distributed as follows: branch banking states, 26, unit banking states, 38; banks within SMSA, 42, banks outside SMSA, 22; banks in North, 19, in South, 30, in West, 15.

§ Data refer to first six months of 1964, converted to an annual basis. Data include 50 banks, distributed as follows: branch banking states, 21, unit banking states, 29; banks within SMSA, 31, banks outside SMSA, 19; banks in North, 15, in South, 23, in West, 12.

Source: Office of the Comptroller of the Currency.

If the rate increase is matched by other commercial banks, the benefit stemming from the new-bank action extends to the depositors of these other institutions as well. It was noted in Part V that the median effective interest rate on time and savings deposits for five "single" banks was below the average rate for all insured banks of the same size class prior to entry of a member of the 1962 class, but moved above the latter after entry. For five "paired" banks, the gap between their median rate and the all-bank rate narrowed after entry of a new bank.

Subgroup comparisons. Table 26 presents the distributions of the effective interest rate on time and savings deposits for various subgroups of the 1962 class in 1963 and the first half of 1964. In 1963, the median and mean of the ratios for the banks in branch banking states were slightly higher than those for banks in unit banking states; the same was true for the median in the first six months of 1964, although the means were identical. The median effective rate paid by the members of the 1962 class within SMSAs was 3.32 percent in 1963, while that paid by those outside SMSAs was 3.08 percent. However, in the first six months of 1964, the median rates were nearly equal, being 3.27 and 3.31 percent, respectively. In both 1963 and the first six months of 1964, the median effective interest rate paid by the members of the 1962 class located in the West was considerably higher than the median rates of the banks located in the North and in the South.

3. *Service charges on checking accounts.*

The size distribution of demand deposits held by a bank strongly influences its ratio of service charges-to-demand deposits; in general, the larger the balance maintained by a depositor, the

larger the amount of activity allowable before a service charge is imposed. As a result, the ratio tends to be smallest for very large banks holding many large commercial accounts. It is apparent that inter-bank comparisons of the ratios do not yield information on comparative charges which would be levied on a given account.

Summary measures of the 1963 and 1964 distributions of the ratios of service charges-to-total demand deposits for the 1962 class are given in Table 25. The mean of the ratios was 1.08 percent in 1963, compared with weighted means of 0.48 percent and 0.62 percent for all insured banks with $2-5 million and $5-10 million in deposits, respectively. The mean of ratios for the 1962 class increased to 1.56 percent in 1964; the 1964 all-bank figure is not available at this writing. It is thus apparent that this group of small new banks had, on the average, a higher ratio of service charges-to-demand deposits than did small older banks.

One could hypothesize that this higher ratio actually reflects higher service charges levied by the new banks for given accounts, as compared with the charges levied by older small banks. The most cost-conscious banks tend to have above-average charges for individual checking accounts, and new banks striving to become profitable are certainly cost-conscious. However, there are two grounds for doubting this hypothesis, at least insofar as it relates to the service-charge schedules of a particular new bank compared to the schedules of its established competitors.[87] First, since a new bank must strive to secure deposits, it would be irrational for it to make its task more difficult by failing at least to match the service-charge schedules of its rivals. Second, though comprehensive data on the service charge schedules of the members of the 1962 class and their competitors were not collected, a number of officers of new banks indicated that their schedules were carefully constructed to yield maximum advantage in the struggle for deposits.[88]

It is likely, then, that the relatively high ratios of service charges-to-demand deposits for the 1962 class reflect smaller average deposits than those of small older banks. In other words, new banks are likely to have fewer large demand deposits on which service charges are nil or nominal. In contemplating a shift of their business to a new bank, the convenience factor probably is given somewhat more weight by individuals than by commercial enterprises; the latter are likely to have established a firmer liaison with their bank than is true for the typical individual. There may also be some hesitancy to deposit an amount in excess of deposit insurance coverage until a new bank proves itself.

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[87] It is possible, of course, that the going service charges in the markets entered by new banks tend to be higher than in most banking markets, reflecting the relative degrees of competition. If this were the case, a new bank could match or even undercut its competitors' schedules and still have charges above the average for all small banks in the country. The data in Table 19 are inconclusive on this point.

[88] One case not only illustrates this point, but also provides an example of oligopolistic maneuver. The officers of one new bank decided that the adoption of service charges below the going rate would give their institution's deposit growth a vital impetus. The bank faced competition from several branch systems plus another small bank. It was correctly anticipated that the branch systems would ignore the new bank's action. The new bank's officers adopted a policy of no service charges on individual accounts which maintained minimum balances of $200. It was reasoned that if $300 were selected as a minimum, the other independent might go to $200. The officers of the new bank had decided they could not go below $200, and doubted that the other independent could do so. Thus, by establishing a $200 minimum, the new bank hoped to reap the publicity benefit accruing to the *first* bank announcing the most favorable terms for depositors.

Subgroup comparisons. The mean ratio of service charges-to-demand deposits was significantly lower in both 1963 and the first six months of 1964 for members of the 1962 class located in branch banking states than for those in unit banking states. The average ratios in the same periods were higher for those members of the 1962 class located within SMSAs than for those outside SMSAs.

C. Rates of Return

Bank rates of return are a relevant dimension of performance from the standpoint of the banking public. The public interest is best served if public entry controls do not allow new bank formation where the probable result would be failure-inducing rates of return. On the other hand, rates in excess of those on comparable investments may indicate inadequate competition.

It is obvious that the rates of return for new banks are not likely to be excessive. During the long struggle to establish themselves, these banks strive first to achieve a "break-even" point, and then to secure a rate of return which will allow their continued existence. Entry of a new bank is relevant to the rate-of-return performance dimension primarily because of its effect on older banks. Other things being equal, entry should hold the rates of return of older banks below the level that would otherwise have been achieved.

D. Competitive Effects of Entry as Viewed by Entrants

Officers of certain new banks which entered towns previously served by only one bank were asked to describe the impact of their institutions' entry on the performances of the established banks. The answers yield not only a description of the competitive effects of entry through the eyes of an entrant, but also a reflection of the new banks' attitudes toward customers.

Here are excerpts or paraphrases of five such accounts by officers of new banks:

Case 1. Loans used to be granted on the basis of whether the bank wanted to be bothered with them or not. Practically no consumer loans or farm machinery loans were made. It appears that the other bank is now enthusiastically striving to serve the borrowing needs of worthwhile customers. It is making small loans and we believe that they are making some machinery loans. There has been no noticeable change of types of services offered by the other bank, but there has been a change in the spirit in which those services are made available. Prior to the granting of our charter, the existing bank made very little effort to support community activities. We find that they now enthusiastically participate and that the business climate of the community is improving because of it.

Case 2. We find that the older bank has made many changes. These include the following: reduced the service charge on checking accounts by reducing the regular minimum balance; lowered interest rates on loans; increased interest rates on savings and time deposits; increased their advertising budget; made lending policies more lenient; adopted a much friendlier attitude toward customers.

Case 3. The other bank's lending policy has so altered that they are contacting the customers who are changing banks after we approve their loans. The bank has a man working the farm implement dealers for purchase of their contracts, business in which it has never been interested before. It has advertised home improvement loans, a new policy since our entry. We know of no changes in their interest on time and savings deposits. The officers of the other bank are taking a more active part in community affairs.

Case 4. Since our bank opened, the other bank has remodeled its interior and has established drive-in and walk-up facilities and a night depository. Service

charges were reduced and interest rates on loans have been modified.

Case 5. The other bank has added Saturday morning drive-in hours. Interest rates on all classes of loans have been modified downward. Interest paid by the competing bank on public funds and time deposits has been increased. A more concerted effort by the competing bank on business calls, advertising and bank promotion is also noted in the community.

While these observers may hardly be termed impartial, the effects they describe are not inconsistent with either economic logic or other findings of this study. It seems apparent that the addition of a second bank to an area which can support it is likely to yield meaningful benefits to all users of banking services, whether or not they shift their business to the new bank.

One qualification should be noted. Only time can reveal which consumer benefits will be permanent and which will prove transitory. An implicit recognition of a community-of-interest between the old and new institutions may eventually lead to a lessening of at least the price aspects of competition. At the minimum, however, the consumer benefits directly traceable to the structure dimension of performance will remain.

VIII. *Summary and Conclusions*

Analysis of the basis for public controls over bank formation indicates that the testing of charter proposals against criteria of "worthiness" and "need" is in the public interest. The "worthiness" test reduces the likelihood that the public will face the inconvenience or loss entailed in dealing with an unstable bank which offers incompetent or inadequate service, and which may be subject to heavy losses or even failure due to mismanagement or misappropriation of funds. A "liberal" application of the "needs" test allows the rejection of applications based on evident miscalculation of the opportunity for a new bank, thus reducing the likelihood of new-bank failures; yet, it avoids the danger that public controls over entry may become mere protective devices for existing banks.

The period 1962-1964 saw a significant increase in the number of newly-organized commercial banks, with the peak number of quarterly approvals of applications for national bank charters occurring in the third quarter of 1963. The group of 64 newly-organized national banks chartered during 1962 (the 1962 class) was selected for detailed analysis in an effort to shed light on the new-bank phenomenon.

Thirty-eight of the 64 banks were located in unit banking states. Some degree of association with established banks was more common for the new banks located in those states than for those in branch banking states. Forty-two of the 64 banks were located in Standard Metropolitan Statistical Areas. The majority of these 42 had sites in suburban-type settings which had experienced rapid population growth in the postwar period. Fourteen of the 22 members of the 1962 class located outside SMSAs were in communities with less than 10,000 population. Forty-five of the 64 banks were located in the South and West.

Organizers for 21 of the 42 banks within SMSAs selected sites with less than two commercial banks operating within three miles. Only five of the 22 banks outside SMSAs had less than two commercial bank rivals within 15 miles, but only three of the 22 had more than three competitors within the same radius.

New-bank organizers face a host of pre-opening tasks, including the choice of a site and a facility design, selection of management and operating personnel, the mounting of a publicity campaign, and the solicitation of deposit pledges from individuals and businesses. Once a new bank opens, the major continuing prob-

lems are to secure adequate deposit growth and to build a sound loan portfolio in the face of an adverse initial selection of loan applicants. The "newness" and "smallness" of the institutions yield some inherent advantages.

The major correspondent bank selected by the organizers will provide significant assistance in handling both pre-opening and post-opening problems faced by new-bank organizers and management, in return for the maintenance of a deposit by the new bank. The correspondent service which may have the most significant impact on the initial operating results of new banks is the provision, via participation or sale, of a loan portfolio, thus reducing somewhat the pressure on new-bank management to generate rapidly a sizeable loan volume. It is not unlikely that the existence of the correspondent-new bank relationship facilitates the formation of more new banks than would otherwise occur. Existing banks which are "associated" with a new bank may provide many of the same types of services that are offered by major correspondents; however, the services provided by an "associate" are likely to be broader and less costly for the new bank.

The 1962 class of newly-organized national banks had been in operation from 24 to 36 months as of the end of 1964. While more substantial conclusions may be drawn after a longer history, it is not too early to make a preliminary assessment.

The average rates of return for the 1962 class progressed steadily upward during the 1962-1964 period. For example, the median ratios of net income-to-total capital for the three years were −.31 percent, 1.71 percent, and 3.45 percent, respectively. Fifty-six of 60 banks had positive net current operating earnings in 1964, and 49 of 60 had positive net income in the same year. The 1964 average rates of return for the 1962 class of national banks were similar, though slightly lower, than the 1961 average rates of return for the 1959 class of national banks.

The rates of deposit and loan growth for the 1962 class have been favorable. The median increase in deposits during the fourth-through-sixth quarters of operation was 54 percent; for loans, it was 64 percent. The comparable figures during the seventh-through-ninth quarters were 24 percent and 28 percent. By the end of two years of operation, 52 of 63 banks had exceeded their projected loans and 34 of 63 had exceeded their projected deposits, some by a very substantial margin. The weighted mean of total assets increased from $3.8 million at mid-1963 to $5.2 million at mid-1964. The latter figure compares with $4.0 million for the 1959 class at mid-1961.

The loan-deposit ratios for the 1962 class were relatively high at mid-1964, but declined somewhat by the end of 1964. From 1962 to mid-1964, the median ratio of time and savings deposits-to-total deposits climbed steadily, but remained stable during the last half of 1964.

Based on examiners' classifications, the quality of the assets of the 1962 class at mid-1964 compared favorably with that of a large sample of older national banks in the same size classes.

Results for ten older banks operating in eight markets entered by members of the 1962 class were examined. The ten included five which had been the sole banks in their markets prior to 1962, and five which had been one of two banks. Prior to entry by a member of the 1962 class, the operations of these older banks were characterized by relatively high rates of return, relatively low loan-deposit ratios, and relatively low effective interest rates on time and savings deposits. Following that entry, the median rate of return for the five "single" banks fell, but that for the five "paired" banks increased. Both medians remained well above the average for all insured banks of the same

deposit class. The median loan-deposit ratio and the median effective interest on time and savings deposits increased more following new entry, for both the single and paired banks, than did the all-bank figures in the same period. The total demand for banking services grew sufficiently to allow six of the ten older banks to achieve higher rates of deposit growth, and nine of the ten to achieve higher rates of loan growth, in the period following new entry than in the period prior to entry.

Comparisons of the results of selected subgroups of the 1962 class resulted in few instances of statistically significant differences. However, certain patterns did appear. Almost without exception, the average rates of return for the new banks with zero or one nearby competitors were higher than the average rates for the new banks with two or more competitors. This relationship was evident when two other criteria, location within or outside SMSAs and applicable branch law were held constant; it was also evident when only one of the latter two criteria was held constant. The 1963 average rates of return for the new banks located in unit banking states were higher than those for the branch banking subgroup, with the number of nearby competitors and location within or outside SMSAs held constant. There was some indication, however, that the initial advantage held by the unit banking subgroup disappeared over the course of the 1962-1964 period. The higher proportion of "associated" new banks in unit banking states than in branch banking states may partially explain the initial advantage enjoyed by the former group. When no account is taken of other factors, the average rates of return of the SMSA subgroup were initially higher than those of the non-SMSA subgroup, but this pattern was reversed over time.

Aside from the possibility of entry-related bank failure, nearly all the other effects of new-bank entry are beneficial from the standpoint of bank customers. New entry results in certain inherent customer benefits, relating to added convenience, the increase in number of alternative sources of banking products and services, and the likelihood of some broadening of product and service lines available. The convenience factor covers the customer benefits stemming from the not uncommon new-bank practice of instituting extended banking hours.

Data findings were consistent with the hypothesis that entry of the 1962 class often led to increased availability of certain kinds of credit, notably installment and small business loans. The average ratios of interest paid on time and savings deposits-to-total time and savings deposits for the 1962 class were slightly higher than the weighted mean for all insured banks of the same size class. The average ratios of service charges-to-total demand deposits were higher in 1963 for the 1962 class than the weighted mean for all insured banks of the same size; this was probably due to smaller average individual deposits for new banks than for older banks. New bank entry is relevant to the rate-of-return performance dimension, in that the typical entry effect would be to hold the rates of return of older banks below the level that would otherwise have been achieved.

We may conclude that the operating results to date have been favorable for most of the 1962 class. Bank customers have enjoyed substantial benefits from the entry of these banks.

Appendix

Number of Newly-Organized Commercial Banks Chartered or Opened, by State and by Chartering Authority,* 1952-1964

State	1952		1953		1954		1955		1956		1957		1958		1959		1960		1961		1962		1963		1964		Total	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
UNITED STATES	15	58	16	52	16	55	28	88	30	93	20	67	18	78	24	94	34	103	26	86	65	120	164	136	205	136	661	1166
Alabama	1	3	0	2	1	3	0	5	0	1	0	3	0	1	0	3	0	1	0	0	0	1	2	2	6	5	10	30
Alaska	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Arizona	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	2	0	0	0	2	1	2	1	10
Arkansas	1	0	0	1	0	2	1	1	0	3	1	0	0	0	0	0	0	1	0	1	1	3	1	0	2	2	7	14
California	2	2	1	11	1	3	1	7	0	2	2	3	0	0	0	2	3	2	1	10	5	7	12	18	38	11	66	78
Colorado	0	3	0	3	0	0	0	4	0	5	0	4	2	8	1	5	1	6	0	3	6	4	15	7	11	8	36	60
Connecticut	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	4	1	6	5
Delaware	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
District of Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	4	0
Florida	1	5	2	3	4	5	3	8	11	12	4	5	3	7	2	11	9	7	2	11	8	14	26	16	23	16	98	120
Georgia	1	2	0	2	0	5	0	6	1	6	1	2	0	2	1	4	2	10	0	4	0	1	2	4	1	8	9	56
Hawaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
Idaho	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	1	0	0	0	2	4
Illinois	0	2	2	4	4	7	3	8	2	7	2	11	0	7	1	10	1	12	5	7	3	22	2	11	7	18	32	126
Indiana	0	1	0	0	0	1	0	1	0	2	1	0	0	0	0	0	0	1	1	0	0	2	0	1	0	1	2	10
Iowa	0	2	0	0	0	1	1	5	1	2	0	1	1	2	0	2	0	1	2	2	1	1	4	1	1	1	11	21
Kansas	0	2	0	2	0	1	0	1	0	1	0	1	0	1	0	3	0	0	2	2	1	4	0	1	2	0	5	19
Kentucky	0	1	1	0	0	0	0	0	0	2	0	0	0	1	0	0	1	0	0	1	0	2	0	0	0	1	2	8
Louisiana	1	0	2	2	1	1	1	4	0	5	0	2	0	4	1	0	0	3	0	2	3	3	0	2	3	7	12	35
Maine	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	4
Maryland	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	1	0	0	1	0	1	0	3	2	4	0	12	4
Massachusetts	0	1	0	0	0	1	0	2	0	0	0	2	1	2	0	5	0	4	0	3	1	3	1	2	1	0	4	25
Michigan	0	1	0	3	0	0	2	0	1	2	0	1	1	2	0	1	0	2	0	1	4	0	4	0	3	0	15	13
Minnesota	0	1	1	2	0	2	0	4	1	2	0	2	1	3	0	1	0	2	1	0	1	4	8	6	3	9	16	38
Mississippi	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	2	0	6	2
Missouri	0	2	0	1	0	2	1	4	0	7	0	1	0	6	3	9	0	5	0	1	1	0	5	5	7	3	17	46
Montana	0	0	0	0	1	0	1	2	0	1	1	0	0	0	0	1	1	5	0	1	0	0	1	1	1	3	6	14
Nebraska	1	0	0	2	0	1	0	2	0	2	0	0	0	2	0	4	0	1	0	2	0	2	1	3	3	2	5	23
Nevada	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	3
New Hampshire	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0	2	3
New Jersey	2	0	0	1	0	0	0	1	0	1	0	1	0	3	0	2	0	2	1	1	3	4	1	3	5	3	12	22
New Mexico	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	1	1	0	2	1	3	1	0	3	0	8	7
New York	0	0	0	1	1	0	1	0	2	1	0	1	0	0	0	1	0	1	1	4	0	1	1	7	5	4	11	21
North Carolina	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	3	3
North Dakota	0	3	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	1	3	2	4	10
Ohio	0	2	2	0	1	0	1	0	0	3	0	2	0	3	1	0	0	1	0	3	0	0	1	1	1	0	7	15
Oklahoma	1	3	1	0	0	2	1	0	0	1	0	1	0	1	0	2	2	2	1	0	1	4	8	1	11	6	26	23
Oregon	0	3	0	1	0	0	0	5	0	3	0	4	0	2	1	0	0	1	0	0	0	0	1	1	0	2	2	22
Pennsylvania	0	1	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	4	1	1	2	9
Rhode Island	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
South Carolina	0	0	0	1	0	1	1	1	0	2	0	1	0	1	0	2	0	1	1	1	2	1	1	2	0	0	5	14
South Dakota	0	2	0	0	0	1	0	2	1	0	0	1	0	0	0	1	0	1	0	0	1	3	1	1	0	0	3	12
Tennessee	0	0	0	1	0	1	2	0	0	1	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	1	5	6
Texas	2	5	1	3	2	6	5	8	6	12	5	8	4	11	7	13	8	18	5	8	14	14	34	19	25	9	118	134
Utah	0	1	0	1	0	0	0	0	0	2	0	5	0	0	0	1	0	1	0	0	1	0	3	1	2	1	6	13
Vermont	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Virginia	0	1	0	1	0	1	0	2	1	0	1	4	0	0	0	0	1	1	0	2	2	1	5	3	9	4	19	20
Washington	1	2	0	1	0	2	1	5	1	1	0	0	0	3	2	0	1	2	0	4	1	3	1	3	5	2	13	28
West Virginia	0	1	0	0	0	2	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	2	0	0	3	1	4	8
Wisconsin	0	1	0	1	0	0	0	0	0	0	0	1	1	1	1	2	1	3	2	4	0	5	3	3	3	0	11	21
Wyoming	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0	1	0	7	0	4	1	14	4

* National bank (NB) data represent charters issued. State bank (SB) data represent openings; non-insured banks are included.

Tables including breakdowns of state member and non-member insured banks by states but excluding non-insured banks, have appeared in the following issues of the **National Banking Review:** for 1953-1959, 1 September 1963, Table 6, pp. 121-125; for 1960-1962, 1 March 1964, Table 8, pp. 451-454; for 1963 and first six months of 1964, 2 September 1964, Table 10, pp. 121-124.

Sources: National bank data are from the Office of the Comptroller of the Currency. State bank data were provided by the Board of Governors of the Federal Reserve System.

►WILLIAM P. YOHE

The Open Market Committee Decision Process and the 1964 Patman Hearings

One of the most vexing and persistent problems facing the student of U.S. monetary policy is the lack of detailed knowledge of the deliberations of the Federal Open Market Committee in its triweekly meetings, which are evidently the focal point of monetary policy decisions in the Federal Reserve System. What we presently "know" about the conduct of FOMC meetings comes essentially from four sources:

1. Statements contained in official Federal Reserve publications, particularly expository articles and pamphlets on open market operations, and the rather cryptic record of policy actions of the FOMC included in the *Annual Report* of the Board of Governors.[1]

2. The papers of former Governors Charles S. Hamlin (covering the period 1914-1936) and George L. Harrison (covering the period 1928-1940). The only minutes of the Open Market Committee heretofore publicly accessible were those in the Harrison papers.[2]

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[1] Among the many examples of expository articles and pamphlets, some of the most recent are Peter M. Keir, "The Open Market Policy Process," *Federal Reserve Bulletin*, XLIX, October 1963, pp. 1359-1370; and Paul Meek, "Open Market Operations," Federal Reserve Bank of New York, 1963. An unusually detailed description of open market operations in 1962 is given in Robert W. Stone, "Federal Reserve Open Market Operations in 1962," *Federal Reserve Bulletin*, XLIX, April 1963, pp. 429-457; this article, however, considers only summarily the background and "profile of policy."

[2] The diaries of the former reside in the Manuscript Division of the Library of Congress, and the extensive papers of the latter, in the Columbia University Library. For a detailed

3. Congressional hearings, chiefly of the Joint Economic Committee and the Committees on Banking and Currency of the House and Senate.[3]

4. A scattered literature by non-Federal Reserve economists, including a few expatriates, and, in recent years, by a handful of political scientists. This literature ranges from attempts to draw inferences about FOMC decisions from published statistical data to historical accounts of the evolution of open market operations and analyses of the power structure of the Federal Reserve System.[4]

The most extensive hearings with a focus on the Federal Reserve System to be held since the 1952 inquiry by the Joint Committee on the Economic Report were held in early 1964 by the Subcommittee on Domestic Finance of the House Committee on Banking and Currency, the Hon. Wright Patman, chairman.[5] These hearings are particularly rich for students of open market policy for two reasons: first, every member of the Board of Governors and every Federal Reserve Bank President was interrogated at length, and, second, nearly all of the questioning was directly or indirectly concerned with open market operations.[6]

The principal objective of this paper is to see what, if anything, these hearings add to our limited knowledge about the

account of their contents, see Milton Friedman and Anna Jacobson Schwartz, *A Monetary History of the United States, 1867-1960*, Princeton, N.J.: Princeton University Press, 1963, *passim*. In late August 1964, the Federal Reserve announced that it would turn over to the National Archives a copy of the Open Market Committee minutes and certain other records for the period 1936 through 1960. The status of the transfer of these records and the information that might be obtained from their voluminous contents is beyond the purview of the present paper.

[3] A bibliography of the major Congressional hearings from 1921-1963 dealing with monetary policy and Federal Reserve operations is given in the hearings to be discussed below, Vol. 3, pp. 1893-1894 (see footnote 5 below).

[4] A representative sample of this literature and its participants is contained in Volumes 2 and 3 of the hearings under review (see footnote 5 below). See also especially C. R. Whittlesey, "Power and Influence in the Federal Reserve System," *Economica*, February 1963, pp. 33-44, and the references cited therein; and John Kareken and Robert M. Solow, "Lags in Monetary Policy," in E. Cary Brown *et al.*, *Stabilization Policies*, Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963, pp. 62-75.

[5] *Hearings, The Federal Reserve System After Fifty Years*, 88th Congress, 2nd Session, Washington, D.C.: Superintendent of Documents, 1964, 3 vols., 2240 pp. Hereafter, these will be referred to as the 1964 Patman *Hearings*, with the volume and page numbers following. The two part compendium of the 1952 investigation is commonly called the Patman Report.

For a personal view of the subcommittee's findings and recommendations, see Wright Patman, "The ABC's of America's Monetary System," *Congressional Record*, 88th Cong., 2nd Sess., CX, No. 149, August 3, 1964, pp. 17253-17262. Also helpful in studying the hearings is "Mr. Patman's Subcommittee on Domestic Finance," *Banking*, LVII, No. 2, August 1964, pp. 52-54.

A brief and perceptive comparison of the work of the Commission on Money and Credit with Patman's 1964 subcommittee is contained in Harry G. Johnson, "Major Issues in Monetary and Fiscal Policies," *Federal Reserve Bulletin*, L, No. 11, November 1964, pp. 1410-1412.

[6] The greatest publicity, perhaps, was given to Patman's insistence that the Federal Reserve be made subject to audit by the General Accounting Office and to Congressional appropriations for operating expenses. His reasoning was based on the fact that nearly all of the income of the Federal Reserve in recent years has been derived from interest on its holdings of U.S. Government securities, out of which expenses have been self-determined and only the balance remitted to the Treasury. His critical attack on individual Federal Reserve Banks was based on the disparities between their activities and their major source of income, between their actual activities (especially the near demise of discounting for member banks) and the implications of the Federal Reserve Act, and between their policies regarding salaries and other expenses (especially for employee recreational and

actual decision process of the FOMC, with respect to our ability both to detect and understand the decisions made, and to assess the factors influencing these decisions. In the pursuit of this objective, we shall catch some glimpses of Mr. Patman's view of the Federal Reserve, of the wit and incisiveness of various members of the subcommittee, and of the characteristic indecision of economists. Finally, we shall relate the contents of the hearings to some of the recent literature on open market policy, while providing a measure of topical cataloging. Surveyed successively will be issues of FOMC secrecy, the use of predictions in policy formation, the decision-making framework, and the locus of power in the Open Market Committee.

I. *Secrecy*

The general issue of secrecy in the Federal Reserve System was recently the subject of an interesting article by Professor C. R. Whittlesey.[7] Traditionally, the secrecy of central bank operations has been defended on the grounds of the "hidden hand" philosophy of effective monetary policy, although nondisclosure inevitably opens the central bank to the charge that it is thereby attempting to insulate itself against criticism.[8] Although it is in general a somewhat moot question, certain aspects of the Federal Reserve's policy toward secrecy received considerable attention in the 1964 *Hearings*.

The nondisclosure of information by the Federal Reserve is in part explicit and in part implicit. Federal Reserve officials have for many years refused to release the full minutes of the Open Market Committee, drawing a careful distinction between the verbatim minutes and the public "record of policy actions" required by Section 10 of the Federal Reserve Act, as amended in 1935.[9] Rep. Patman has attempted for several years to secure and make public some of these minutes, but, and the 1964 *Hearings* were no exception, he has not as yet succeeded. The grounds given by every Federal Reserve governor and president were both the familiar "hidden hand" reasoning and the nonbetrayal of foreign confidences.[10] There was, however, some disagreement over whether the minutes should ever be released, and, if so, how much time should elapse and how much editing should be done. A few governors and presidents expressed concern that the prospect of making the minutes public might adversely affect the free flow of

educational benefits and for professional banking associations) and the policies of government agencies subject to GAO audit and Congressional appropriations. Patman's "package" views are summarized many times in *ibid.*, e.g., I, pp. 415-416, 500-502, 504-505, 642-644, 733-734, 737-738.

[7] "Federal Reserve Policy: Disclosure and Nondisclosure," *The National Banking Review*, 1, September 1963, pp. 77-87.

[8] On the "hidden hand" philosophy, see, *inter alia*, J. M. Keynes, *A Treatise on Money*, Vol. II, London: Macmillan and Co., 1930, p. 232 (one winces at Keynes' reference to the "full and splendid publicity of the Federal Reserve System"). An interesting light on "insulation from criticism" is contained in the report of A. L. Mills' dissent from a change in FOMC directives procedure in the Federal Reserve *Annual Report* for 1961, p. 93.

[9] See 1964 Patman *Hearings*, I, p. 728, and *The Federal Reserve Act*, as amended through October 1, 1961, Washington, D.C.: Board of Governors of the Federal Reserve System, n.d., p. 32.

[10] 1964 Patman *Hearings*, I, pp. 54-59, *et passim*. Patman (*ibid.*, p. 635) credits the earlier publication of the Federal Reserve's *Annual Report* in recent years to pressure from the Joint Economic Committee in its 1961 investigation. On the imminent availability of FOMC records for 1936-1960, see footenote 2 above.

ideas and opinions at FOMC meetings. The reason for Patman's unending crusade was succinctly stated in his dialogue with the chairman of the Board of Governors:

> . . . (W)e want to see what the Open Market Committee has been doing. That is where everything happens—in the Open Market Committee.
> . . . Nobody has any power except the Open Market Committee in the Federal Reserve System. . . .
> We want to see how they operate. We want to evaluate their actions. And this [i.e., securing the minutes] is the only way we can evaluate their actions. (I, p. 55)

The other kind of secrecy practiced by the Federal Reserve has long been regarded as particularly invidious by the academic community.[11] This is the implicit nondisclosure accomplished through concealing major open market policy moves in the "random noise" or "smokescreen" of daily operations by the Federal Reserve Bank of New York, and through the use of the "Federalese" language in public policy statements. The first of these tactics received considerable comment from the members of Patman's subcommittee and, in particular, from the professional economists who appeared before it.

The alleged preoccupation of the Federal Reserve with very short-run movements in the government securities markets has been the subject of a number of recent papers by economists, who have suggested abandoning the large scale "mothering" or defensive operations and allowing the markets to adjust themselves, possibly augmenting the adjustment process through such devices as opening up the discount window and altering the pattern of reserve settlement periods to eliminate certain intra-monthly disturbances.[12] Similar views were expressed by economists appearing before Patman's subcommittee.[13] Professor Ross Robertson, a former Federal Reserve economist, captured the spirit of this line of criticism in his reflection on the fact that gross open market operations in 1957-1959 were more than twenty times as great as the net reserve injection for the period:

> This seems to me a great deal of monkeying around in the marketplace for very little net effect. (II, p. 1358)

The Federal Reserve's use of the English language, another matter of long-time concern to students of monetary policy, received a severe attack from Patman:

> . . . (I)t is way after the thing [i.e., an action by the Federal Open Market Committee] occurs before the decisions are known.
> . . . (Y)ou do not make a report so soon. Congress does not know anything about it and then you report in such gobbledygook language . . . and when . . . you read the reports you do not know any more than you did before. (I, p. 656)
> . . . And that [i.e., Federal Reserve reports

[11] E.G., Whittlesey, *op. cit.* Professor Whittlesey also discusses (p. 84) disclosure by "indirection, intrigue, and subterfuge."

[12] E.g., Joseph Aschheim, "Financial Intermediaries and the Goals of Monetary Policy," *American Economic Review*, LIII, May 1963, pp. 360-371; and Albert H. Cox and Ralph F. Leach, "Defensive Open Market Operations and the Reserve Settlement Periods of Member Banks," *Journal of Finance*, XIX, March 1964, pp. 76-93.

[13] See, e.g., the testimony of Robert H. Strotz, Allan H. Meltzer, and Ross M. Robertson in 1964 Patman *Hearings*, II. A brief reply to what he calls the "money market myopia" criticism is contained in the testimony by Governor J. Dewey Daane (*ibid.*, p. 1195); his explanation lies in an alleged failure of the critics to distinguish the "defensive" and "dynamic" aspects of open market operations.

and memos] is all in gobbledygook. It is in language which almost reminds me of a sect that has an unknown tongue. You just go around talking and talking, and nobody else can understand you. I doubt that we would even get any public information from our standpoint from your [Open Market Committee] minutes if we got them. . . . (I, p. 737)

This position, surprisingly, was given some support by Governor George W. Mitchell, who agreed "that the Federal Reserve's exposition of its monetary analysis has been too shrouded in confidentiality, 'Federalese,' and the traditional image of central banker stolidity." (II, p. 1518)

II. *The Use of Predictions in Policy Formation*

Turning now to the actual process of decision-making in the Open Market Committee, we encounter the first of many contradictions in the testimony. It is very difficult, if not impossible, to reconcile statements such as the following:

President Frederick L. Deming, Federal Reserve Bank of Minneapolis: "I would say that we try to see as far ahead as we can." (I, p. 721)

Professor Allan H. Meltzer: "[The Federal Reserve's] record [since 1951] in predicting or observing turning points was unassailable. . . ." (II, p. 947)

Professor O. H. Brownlee: "(O)ur monetary authorities have contributed to economic instability not only because of using the wrong targets but also because of acting as if the future could be known more accurately than we can now predict it." (II, p. 1064)

Chairman William McC. Martin, Jr.: "If you can act within 6 months of the time [of the peak of a particular movement] I think you are doing fairly well."[14] (I, p. 84) ". . . I have gotten very wary of putting up prospective models or conditions and believing that I can see the answer." (I, p. 89)

Professors D. C. Hastings and R. M. Robertson: "There exists in the Federal Reserve System an unwritten rule against explicit forecasting of business conditions; even modest attempts at prognosis are blue-penciled if written and ignored if expressed verbally."[15] (II, p. 1523)

These views cover the whole spectrum from asserting that the Federal Reserve relies excessively on forecasting, to asserting that the Federal Reserve puts no reliance on forecasting, and they demonstrate the unsettled state of opinion in both the academic and the monetary authorities' houses.

III. *The Framework Within Which Decisions Are Made*

Federal Reserve statements, and the 1964 *Hearings* are no exception, are replete with lists of subjects on which members of the Open Market Committee are briefed and lists of various range "guideposts" and "targets" of monetary policy.[16] Such statements, unfortunately, tell us nothing about the weights given to various items of information, priorities among objectives, or the precise process whereby decisions are made regarding

[14] This statement roughly coincides with the results of an empirical study of the so-called "inside lag" in Kareken and Solow, *op. cit.*, pp. 62-73.

[15] This statement is contained in a reprinting for the record of "The Mysterious World of THE FED," *Business Horizons*, Spring 1962, pp. 97-104. The authors maintain that the absence of forecasts in policy formation contributes to "erratic action, lagged responses, and policy more often than not based on correction of past errors rather than on anticipation of future events."

[16] See the references in footnote 1 above and in the 1964 Patman *Hearings*, Governor Daane's and Mitchell's statements in II, pp. 1195 and 1518, and Chairman Martin's testimony in I, pp. 35-39.

the use of particular instruments of monetary policy.

As we shall see, depending on whose testimony is considered, we might conclude that the FOMC makes decisions:

1. on the basis of "piecemeal appraisal" with "a heavy loss in under-utilized information," i.e., a sort of random walk through a maze of statistical information;[17]

2. on the basis of an attempt to make a qualitative judgment summarizing the committee's appraisals of and responses to diverse, conflicting, and essentially unorganized quantitative information; or

3. on the basis of a more or less specific decision rule, not all the details of which have been divulged to the public.

The first of these possibilities may, perhaps, be inferred from the official descriptions of the open market policy process. The sheer volume of information which the Federal Reserve purports to bring to bear on decision making suggests that much of it is either redundant, irrelevant, or subject to necessarily arbitrary evaluation. One economist appearing before the subcommittee, H. Scott Gordon, who stirred up considerable discussion several years ago with his little book *The Economists Versus the Bank of Canada* (Toronto: Ryerson Press, 1961), sought to link the "Federalese" aspect of secrecy with the underlying decision process:

> . . . (I)t seems to me that there is so much muddiness in the analysis of monetary processes displayed by the public statements [of the Fed] that it is very difficult to believe that the actual practice could somehow resolve itself and be clearer. (II, p. 966)

The second of the above possibilities is reflected in statements such as the following:

> President Alfred Hayes, Federal Reserve Bank of New York: "These things [i.e., open market decisions] are never an exact science. These are an art, and you can never be sure. . . ." (I, p. 661)

> Professor Karl Brunner: "The primary problem remains the Federal Reserve's overt preference for basing policy decisions on vague, unsubstantiated, and conflicting notions and justifying them with the aid of metaphors." (II, p. 1226)

> Professor Ross M. Robertson: "We see so much reference in the reporting of monetary decisions to 'seat-of-the-pants judgment' or 'leaning against the winds' of inflation or, to use a particularly vulgar expression that is appearing more and more, the 'gut feel' of the Fed." (II, p. 1368)

> Professors Harvey Mansfield and Myron Hale (political scientists): "Within and outside the System, economists trained to seek quantitative solutions find the qualitative nature of the [FOMC] directives unsatisfactory, while [Open Market Account] Manager stresses the importance of intangible factors and the need for intuitive skills in assessing the 'feel' and 'tone' of the market." (III, p. 1983)

A final possibility is that the Open Market Committee does employ, explicitly or implicitly, some sort of decision rule, in which information and objectives are somehow identified and weighted and related to policy measures, but that all of the specifics of the process are not known to outsiders. If we adopt this point of view, we want to know about such matters as the selection and weighting of relevant information and targets, proxies used for the target variables, and the mechanism through which policy de-

[17] R. J. Ball, "The Construction and Uses of Statistical Economic Models," *The Statistician*, XIII, No. 4, 1963, p. 252. Professor Ball continues: "The volume of information becomes so great that it is difficult if not impossible to integrate it and organize one's thinking in the absence of an appropriate formal structure."

cisions are expected to influence the target variables.

There is some evidence that at least a few individuals who are now or have been in attendance at FOMC meetings, employ some sort of analytical framework in which there is a delineation of levels of policy target variables and a distinction between targets and guides.[18] Further, there are numerous indications that, since sometime in 1961, the Federal Reserve has not been identifying strategic changes in member bank reserve positions with changes in "free reserves," although this particular horse continued to receive substantial beating in the 1964 *Hearings*.[19]

A frequent criticism from academic economists appearing before the Patman subcommittee is that the Federal Reserve has been preoccupied with countercyclical variations in bank credit and interest rates, to the neglect of, and even in confusion with, the behavior of the money supply.[20] Several of the same economists accused the Federal Reserve of actually instigating, in several postwar intervals, procyclical changes in the money supply. The stock reply from Federal Reserve officials to this charge is exemplified by a dialogue between Congressman Henry Reuss and Governor George W. Mitchell:

> Mr. Reuss: ". . . In saying as I do that the Federal Reserve's decrease in the money supply [in 1957 and 1960] had something, and an unfortunate something, to do with the unemployment and recession that followed, am I guilty of McCarthyism, of guilt by association, or is there not a causal connection between this strangulation of the money supply and the unemployment and recession which followed?"
>
> Mr. Mitchell: "I think you put it beautifully. This is guilt by association; yes."
>
> Mr. Reuss: "I am guilty of monetary McCarthyism?"
>
> Mr. Mitchell: "Yes, that is right, because we don't know which comes first." (II, p. 1214)[21]

In trying to obtain a clear picture of Federal Reserve decision criteria, Congressman Reuss raised two interesting points in the course of his questioning of Federal Reserve governors and presidents. One is that there is "some vague third force that the Fed is forever seeing, and tightening money when there is no inflation. . . ."[22] Some suggestion of this "third force," or at least a proxy for it, may be inferred from Chairman Martin's

[18] E.g., Robert V. Roosa, "Monetary and Credit Policy," in *Economics and the Policy Maker*, Washington, D.C.: Brookings Institution, 1959, pp. 89-116; and Frederick L. Deming, "Monetary Policy Objectives and Guides," paper presented at the Commercial and Central Banking Seminar, University of North Carolina, August 28, 1963.

[19] On the broadening of the Federal Reserve's conception of reserve positions, see the *Annual Reports* from 1961 onwards; "Measures of Member Bank Reserves," *Federal Reserve Bulletin*, XLIX, No. 7, July 1963, pp. 890-903; and various articles in the monthly reviews of individual Federal Reserve Banks. On the continued criticism for excessive reliance on "free reserves," see the references cited in footnote 13 above, since the issue is related to the "money market myopia" criticism.

[20] See, for example, the testimony by Karl Brunner, Allan H. Meltzer, O. H. Brownlee, Milton Friedman, Dudley W. Johnson, and Robert H. Strotz. An interesting discussion of the various possible interest rate objectives in the formulation of monetary policy is contained in Clark Warburton's formal statement (1964 Patman *Hearings*, II, pp. 1324-1325).

[21] See also the written replies by Governors Mitchell and Daane in *ibid.*, II and III, to the testimony by Professors Brunner and Friedman and to a request from Mr. Reuss for information on the relation between money and economic activity.

[22] *Ibid.*, I, p. 721. Cf. J.M. Culbertson's warnings of a revival of "real bills" thinking in recent Federal Reserve statements ("United States Monetary History: Its Implications for Monetary Theory," *The National Banking Review*, 1, March 1964, pp. 367-369) and Chairman Martin's criticism of the doctrine, 1964 Patman *Hearings*, I, p. 11.

response to questioning about whether the Federal Reserve might conceivably tighten its monetary policy after enactment of the 1964 tax cut:

> You could have a spillover of speculative impulses that create an inflation that will undermine employment and lead to a decline in business of the sort that we don't want. (I, p. 86)

and also in Governor Mitchell's written rejoinder to Professor Friedman, specifically on the usefulness of changes in income velocity and transactions velocity (as measured by the annual rate of turnover of demand deposits):

> The turnover measure therefore has the advantage of incorporating the public's total need for money; first differences in this series may reflect more accurately and promptly than any other measure we presently use changes in the demand for money. (II, p. 1519)

The other point raised by Reuss has to do with the precise form into which the Federal Reserve has translated its tacit mandate in the Employment Act of 1946:[23]

> . . . (W)hat the Congress said [in the Employment Act of 1946] was "maximum employment and production," and this "sustained" talk has been used constantly by the Fed to choke off an expansion on the ground of "we had better put on the brakes here because if this economy gets going too good, we won't be able to sustain it . . . .
>
> . . . (I)f you and your colleagues keep putting in this "sustained" stuff, you get into a frame of mind where you think you are doing your duty when you put on the brakes the minute things get going reasonably well. . . . (II, p. 1217)

Governor Daane's reply was the rather puzzling assertion (II, p. 1219) "that a sustainable expansion—sustained over longer periods . . .—will over time produce maximum production, employment, and purchasing power." This statement may be interpreted either as a tautology or as an empirical generalization of uncertain validity, particularly regarding the effects on investment expenditures of implicitly "sustaining" excess capacity and of moving toward "slightly less ease" to "sustain" an expansion.

IV. *The Locus of Power in the Open Market Committee*

An even more elusive problem is the distribution of power and influence in the determination of FOMC decisions. On the basis of the testimony, it is possible to discern no fewer than seven propositions relating to the power structure, some of which are conflicting and some of which are complementary:

1. The FOMC is dominated by the chairman.
2. The FOMC is dominated by the strong personalities in attendance at its meetings.
3. The FOMC is dominated by the seven governors.
4. The FOMC is dominated by the twelve presidents, who are ultimately responsive to private banking interests.
5. The FOMC is a splendid example of informed democracy in action and in full harmony with the Federal Reserve Act.
6. The individuals comprising the FOMC are, in reality, captives of the System.
7. The Federal Reserve Bank of New York, if not actually dominant, is nevertheless capable of exerting a substantial

[23] That the Federal Reserve acknowledges such a mandate was affirmed by a number of governors and presidents (see e.g., the testimony of Chairman Martin, *ibid.*, I, pp. 16, 30-31, 35, 82-83).

influence on policy decisions and their outcomes.

The first proposition may be defended on two different grounds. One is that the cumbersome formal structure of the System in general and the Open Market Committee in particular are responsible for a considerable concentration of authority in the Chairman of the Board of Governors. This is the position taken recently by C. R. Whittlesey and, in the 1964 *Hearings*, by Michael D. Reagan, a political scientist.[24]

The other ground is a special case of the second of the above propositions, that a particularly strong individual who happens to be chairman currently dominates the FOMC. The committee's deliberations result in what is facetiously called a "Martin consensus."[25] The second proposition is a recurring theme in Friedman and Schwartz's recently published monetary history (*op. cit.*) and appears in the record of the 1964 *Hearings* as follows:

> The actions of the Reserve System depend on whether there are a few persons in the System who exert intellectual leadership, and on who these people are . . . . (II, p. 1172)[26]

The third and fourth propositions are obviously conflicting. The third may be inferred from Paul A. Samuelson's testimony (II, p. 1119), while the primacy of the governors over the presidents, merely one aspect in his view of the "nodes of power" in the System, was stated strongly by Ross M. Robertson:

> . . . (I)t is not likely that the appointment of a Federal Reserve bank President will nowadays be approved by the Board unless there is a reasonable certainty that the new President will have orthodox views regarding money matters.
>
> . . . I am positive that Reserve bank Presidents are not valued for their independence of thought. (II, p. 1363)

The fourth proposition was that held tenaciously by Wright Patman before, all through, and, by inference, after the hearings, despite the lack of any corroborative evidence from witnesses appearing before the committee.[27] The reasoning was based on the facts that (1) each Reserve Bank president is responsible to a board, two thirds of whom are private bankers, (2) all twelve presidents attend and participate in each Open Market Committee meeting, even though only five are empowered to vote (compared to the seven votes of the governors), and (3)

[24] C. R. Whittlesey, "Power and Influence . . .," *op. cit.*, p. 37, and Reagan's testimony in 1964 Patman *Hearings*, III, pp. 1576-1580. See also the latter's "The Political Structure of the Federal Reserve System," *American Political Science Review*, LV, No. 1, March 1961, pp. 64-76.

[25] 1964 Patman *Hearings*, II, p. 1523 (see also p. 1363 and III, pp. 1887-1888).

[26] Reprinted from Milton Friedman, "Should There Be an Independent Monetary Authority?," in Leland B. Yeager (ed.), *In Search of a Monetary Constitution*, Cambridge, Mass.: Harvard University Press, 1962. Cf. the staff memorandum in 1964 Patman *Hearings*, III, pp. 1964 and 1981.

[27] See 1964 Patman *Hearings*, I, pp. 99, 126-128; and "The ABCs of America's Monetary System," *op. cit.*, pp. 17254-17255. Similar opinions were expressed in testimony of Nathaniel Goldfinger of the AFL-CIO (e.g., 1964 Patman *Hearings*, II, pp. 1487-1491), Leon H. Keyserling of the Conference on Economic Progress (*ibid.*, III, p. 1864), and Jerry Voorhis of the Cooperative League of the U.S. (*ibid.*, III, p. 1662-1663). This position has been dealt with harshly by Michael D. Reagan ("The Internal Structure of the Federal Reserve: A Political Analysis," *Monetary Management*, Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963, p. 392):

> The charge . . . that the System is "wide open" to banker domination is a further example of the suspicions to which the System is subject because of what may look like the indirect intrusion of a private group into the public policy process even if there be no substance behind the facade.

votes are rarely taken, but action is usually based on a consensus of the entire group, of which the presidents constitute a majority. While this particular route for asserting the old charge of banker domination received the greatest attention in the 1964 *Hearings*, a rather more subtle route also appeared, i.e., via the Federal Reserve's maintaining the viewpoint of a banker in its approach to monetary policy.[28]

The fifth proposition is the unanimously expressed opinion of the governors and the presidents. Several representative statements illustrate this position:

Chairman William McC. Martin, Jr.: "I have no authority as Chairman of the Board. This Federal Reserve System . . . was set up where the Chairman of the Board has no more vote than any other member of the Board." (I, p. 55)

Governor J. L. Robertson: ". . . I vote in accordance with my own conscience." (I, p. 113)

"And I think the traditions within the System are such as to assure real effort on the part of every individual to remain impartial and objective, and avoid any conflict of interest." (I, p. 119)

Governor Charles N. Shepardson: "I have felt perfectly free and have sensed no indication of pressure from anybody to influence my decisions in actions before the Board." (I, p. 113)

President Edward A. Wayne, Federal Reserve Bank of Richmond: ". . . I have never caucused with anyone as to the position I would take in the open market discussions." (I, p. 340)

President Frederick L. Deming, Federal Reserve Bank of Minneapolis: "Reserve bank Presidents . . . are able to bring to monetary policy deliberations a knowledge of what I call grassroots thinking . . . ." (I, p. 690)

President Alfred Hayes, Federal Reserve Bank of New York: ". . . (T)he Presidents . . . speak and they vote for what they believe to be the interests of the Nation as a whole." (I, pp. 528-529)

The sixth ("captives of the System") proposition is an intriguing, if elusive, one. Anyone who has ever worked with Federal Reserve publications or personnel has doubtless sensed a certain conformity of thought and opinion and a defensiveness of System policy. Congressmen Reuss and Hanna also sensed this in the testimony and stated their impressions rather graphically:

Mr. Reuss: ". . . (E)very representative of the Federal Reserve in Washington comes up here and sings exactly the same song.

"Now, this suggests that this thing is a monolith, that members of this organization somehow lose their individual personality." (II, p. 1118)

Mr. Hanna: "It seems to me that the more protected an institution is and the more important its functions are the higher the probability is that there will emerge some kind of dogma and that the justification of whatever actions they take will be against the framework of that dogma, as perhaps a choice against the illusive [elusive?] chase of truth." (II, p. 1119)

"Now, I do not know whether you [Governors Mitchell and Daane] want to comment on whether you are not dominated by the structure of the body in which you serve, but I suspect you are." (II, p. 1202)

The seventh and final proposition is one for which Professor Karl Brunner provided some empirical evidence,[29] and to which Mr. Patman returned repeatedly in his questioning of governors and presidents. According to this view, variously stated, either the Federal Reserve Bank of New York, its president, or its vice-president who serves as manager of the

[28] See Allan H. Meltzer's testimony in the 1964 Patman *Hearings*, II, p. 932. Cf. Wright Patman, "The ABCs of America's Monetary System," *op. cit.*, pp. 17255-17256.

[29] 1964 Patman *Hearings*, II, pp. 1059, 1061.

System Open Market Account, constitutes a "'wild card' roving end of the Federal Reserve System":

> What Coach Martin wants sometimes he fails to get because "wild card" end Hayes [president of the New York Fed] decides he wants to do something else and runs with the ball another way.[30]

The discretion exercised by the Federal Reserve Bank of New York, which was sharply curtailed during the era of "bills only," may be justified on the grounds of the impossibility of unambiguous quantitative translation of the essentially qualitative directives of the Open Market Committee.[31] The extent of this discretion is considerably broader if it can be shown, as Professor Brunner purports to do, that "policy changes have frequently been initiated by the Account Manager and were subsequently supported by a suitable consensus of the Federal Open Market Committee."[32]

V. *Conclusions*

The picture of the Open Market Committee decision-making process that emerges from the profusion of "expert" testimony in the 1964 *Hearings* is still one without sharply defined contours and subject to a variety of contradictory interpretations. It is not at all clear, however, that the changes in formal organization of the Board and the FOMC recommended by Patman's subcommittee would remedy many of the subtle and, to some, invidious aspects of the System's determination of policy.[33]

The primary purpose of the 1964 Patman *Hearings* has been described as a deliberate effort "to encourage the airing of criticisms of the Federal Reserve—and criticisms have been recorded in abundance."[34] Perhaps in response to these criticisms, the Federal Reserve has recently increased its outflow of statistical information and made several rapprochements to academic economists. There is always the danger that the publication of a greater number of statistical series, as can be argued with measures of bank reserve positions, may be a smokescreen to conceal what the Federal Reserve regards as particularly strategic. Further, rapproachements, like missionary work among the heathens, may ultimately be for purposes of conversion.[35]

For the student of open market policy, the 1964 *Hearings* make painfully clear the apparent and perhaps deserved failure of contemporary monetary theory to influence the determination of monetary policy. In reflecting on the testimony of economists, one can even be led to think,

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[30] Wright Patman, "The ABCs of America's Monetary System," *op. cit.*, p. 17254.

[31] See 1964 Patman *Hearings*, II, pp. 1523-1524.

[32] *Ibid.*, p. 1059. Professor Brunner's observations may themselves be illusory; in a sense, it may well be the market that initiates policy changes. As stated so well by Walter Bagehot, "when men's own fortunes are at stake, the instinct of the trader does somehow anticipate the conclusions of the closet" (*Lombard Street*, new printing, Homewood, Ill.: Richard D. Irwin, Inc., 1962, p. 87).

[33] A controversy has arisen over whether the subcommittee as a group actually agreed upon a specific set of proposals. The text of a June 28 press release from Patman and a brief account of the controversy appears in *Banking*, LVII, No. 2, August 1964, pp. 55-56. A list of proposals differing slightly from the June 28 release appears in Patman's "The ABC's . . ." speech, *op. cit.*, p. 17258.

[34] Harry G. Johnson, *op. cit.*, p. 1411.

[35] On this point, see the extraordinary testimony by Winfield Riefler before the Radcliffe Committee (Committee on the Working of the Monetary System, *Minutes of Evidence*, London: H.M.S.O., 1960, pp. 623-624).

as a friend commented in a recent letter, that "monetary theory is going backwards," judging from the homage paid to neo-quantity theories. Finally, the cacophony of statements with political and sociological overtones will, hopefully, lead economists to enlist the aid of colleagues in other behavioral disciplines.

► STANLEY SILVERBERG

Growth and Performance of Common Trust Funds in 1964

At the end of 1964, 425 banks and trust companies operated 800 common trust funds having assets of almost $6 billion.[1] Common trust fund assets increased by approximately $1.3 billion (almost 30 percent) in 1964, and since the end of 1962 the increase has been about $2.3 billion (nearly 65 percent). While more than 25 percent of this two-year increase in common trust fund assets was the result of stock market appreciation, the major part of the increase came through the establishment of new common trust funds and additions to existing common trust funds from new and existing trust accounts. Table 1 shows the growth in number of accounts and assets of common trust funds since 1955.

In recent years banks have been shifting a larger number of trust accounts or portions of such accounts into common trust funds. This has lowered the cost to banks of administering smaller trust accounts and may have led to increased interest in them. However, at the present time it is difficult to determine how much of the inflow into common trust funds derives from new trust accounts as opposed to the transfer of existing trust accounts.

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[1] This is exclusive of collective investment funds set up for commingling pension and profit-sharing accounts. These will be discussed in an article on overall trust investments of commercial banks which will appear in *The National Banking Review* later in the year.

Table 1
Common Trust Fund Growth*

Year	Number of Banks	Number of Funds	Number of Account Participations	Total Assets ($ Millions)	Average Fund Size ($ Thousands)	Average Account Participation ($ Thousands)
1955	174	222	87,000	1,868.7	8,417.6	21.5
1960	327	421	126,000	2,812.6	6,680.8	22.3
1962	343	564	165,000	3,577.7	6,343.4	21.7
1963	391	693	191,300	4,539.8	6,550.9	23.7
1964	419	788	228,100	5,854.2	7,429.2	25.7

* Figures for 1955, 1960, and 1962 are from the **Federal Reserve Bulletin,** June 1963, May 1961, and May 1957. Total Asset figures are for the last valuation date of the year—generally October 31, November 30 or December 31. Those common trust funds established during the last three months of the calendar year and, thus, not having a valuation date during that year are not included in any of the above figures until the following year. All figures used in subsequent tables will be on the same basis, i.e. as of the last valuation date during the calendar year for each common trust fund. During the final months of 1964, 12 new common trust funds were established by eight banks (six of which had no previous common trust funds). Figures on these funds are not included in any of the tables. During the final months of 1963, at least 19 common trust funds were established which were not included until the 1964 figures.

I. *Asset Distribution*

Table 2 sets forth the asset composition of common trust funds at the end of the reporting period for 1963 and 1964. Table 3 shows the asset distribution of common trust funds according to the type of fund. The most significant change in asset distribution is the increase in the importance of tax-exempt securities. Common trust fund holdings of these securities approximately doubled during 1964 and, at more than $700 million, they accounted for more than 12 percent of common trust fund assets at the end of the 1964 reporting period. Only three years earlier, common trust funds had less than $100 million (less than 2.5 percent of their assets) in tax-exempt securities.

To some degree this change reflects the increased emphasis on "single-purpose" funds designed to meet the needs of a particular category of trust investors. Most of the early common trust funds were diversified in asset mix so that a single fund could approximate the needs of smaller trust accounts. During the past few years there has been increased emphasis on funds devoted exclusively to equities, to fixed-income securities, and to tax-exempt securities.[2] Where some balance is desired, say between equities and bonds, a given trust account may be divided among two different common trust funds. In recent years, most larger trust departments have been operating at least two common trust funds. At the end of 1964, diversified funds still accounted for about 53 percent of common trust fund assets, but that contrasts with a figure of about 77 percent at the end of 1961. During 1964, about 80 percent of the net cash inflow into common trust funds went into single-purpose funds.

The increase in common trust funds devoted exclusively to investments in tax-exempt securities was also spurred by the April 1963 revision of the Comptroller's Regulation 9 which eliminated the $100,000 ceiling on the amount of a single trust account that could be invested in a common trust fund.[3] Trust accounts in-

[2] Several fixed-income or diversified common trust funds hold nominal amounts of tax-exempt securities. One notable exception is a large fixed-income fund which devotes approximately 50 percent of its assets to tax-exempt securities.

[3] See "Bank Trust Regulatory Freedom Stimulates Demand for Tax-Exempts," *Daily Bond Buyer,* October 7, 1964. This article suggests that the increase in tax-exempt funds has resulted in an increase in the demand for tax-exempt securities. However, many tax-exempt funds probably involve the commingling of trust accounts that had been or would have been otherwise invested in tax-exempt securities.

Table 2

Asset Distribution of Common Trust Funds for 1963 and 1964*

Asset	Amount ($ Millions)		Percent of Total		1963-64 Change	
	1963	1964	1963	1964	Amount ($ Millions)	Percent
Cash	38.3	40.0	0.8	0.7	1.7	4.4
U.S. Gov't. Securities†						
Under one year	72.1	64.7	1.6	1.1	−7.4	−10.3
All other	427.8	575.8	9.4	9.8	148.0	34.6
State County Municipal Securities	344.9	705.9	7.6	12.1	361.0	104.7
Corporate and other Bonds	1,092.8	1,353.1	24.1	23.1	260.3	23.8
Mortgages	90.6	132.4	2.0	2.3	41.8	46.1
Preferred Stock	221.6	219.2	4.9	3.7	−2.4	−1.1
Common Stock	2,242.0	2,752.1	49.4	47.0	510.1	22.8
Bank and Other Financial	227.8	247.4	5.0	4.2	19.6	8.6
Utilities	525.3	622.5	11.6	10.6	97.2	18.5
All Other	1,488.9	1,882.2	32.8	32.2	393.3	26.4
Other Assets	9.6	11.1	0.2	0.2	1.5	15.6
Total Assets	4,539.8	5,854.2	100.0	100.0	1,314.4	29.0

* These figures were derived from a survey of banks and trust companies operating common trust funds. Data are for the last valuation date in 1964 and 1963.
† U.S. Government securities include the liabilities of various Federal Agencies and instrumentalities. Corporate and other bonds include bonds of foreign governments and of the International Bank, corporate mortgage bonds and privately placed corporate debt other than real estate loans. Mortgages include residential and commercial real estate loans. Other assets include certificates of deposits, other time deposits, savings and loan shares and ground leases.

Table 3

Distribution of Assets by Type of Common Trust Fund for 1964*
(figures in percent)

Asset	Equity	Diversified	Fixed-Income	Tax-Exempt
Cash	0.6	0.5	1.2	0.8
U.S. Government Securities				
Under 1 year	1.1	1.2	1.6	—
All Other	0.1	12.6	17.5	—
State, County, Municipal Securities	—	0.1	1.5	98.8
Corporate and other Bonds	0.1	21.9	63.9	0.4
Mortgages	—	1.7	7.5	—
Preferred Stock	0.2	5.1	5.6	—
Common Stock	97.8	56.8	0.6	—
Bank and Other Financial	8.6	5.2	0.1	—
Utilities	21.6	13.0	0.1	—
All Other	67.6	38.6	0.4	—
Other Assets	0.1	0.1	0.6	—
Total Assets	100.0	100.0	100.0	100.0
Total Assets ($ millions)	996.6	3,119.4	1,042.2	696.1
Number of Funds	223	297	202	66
Number of Account Participations	50,500	103,800	60,600	13,200
1963				
Total Assets ($ millions)	775.0	2,764.0	673.7	327.0
Number of Funds	191	289	172	41
Number of Account Participations	41,800	96,200	46,500	6,800

* The figures in this table were derived on the same basis as those in Tables 1 and 2.

vested in tax-exempt securities typically are larger accounts where the beneficiary's income and potential tax rate are high enough to justify investment in lower-yielding, tax-exempt securities.

The average account participation in common trust funds devoted to tax-exempt securities was in excess of $50,000 at the end of 1964, in contrast to an average figure of less than $25,000 for all other common trust participations. Apparently, many tax-exempt funds contain account participations in excess of $100,000, and in the case of the largest tax-exempt fund the *average* participation was approximately $140,000 at the end of 1964.

At approximately $25,700, the average participation in common trust funds has not increased substantially since 1955. We might have expected the increase in equity prices alone to have given rise to a greater increase in the average participation in common trust funds. However, increased equity prices and the commingling of larger trust accounts in response to elimination of the $100,000 single-participation ceiling have been partially offset by other factors. A number of smaller banks with smaller trust accounts have established common trust funds in recent years. Also, the use of single-purpose funds has encouraged trust departments to divide a single trust account among two or more common trust funds, a procedure allowing far more flexibility than sole reliance on a diversified fund.

For a number of years the share of common trust fund assets devoted to equities has remained around 50 percent —considerably less than the average for trust accounts generally. The increased importance of tax-exempt securities has caused a decline in the share of common trust fund assets devoted to equities. In 1964, fixed-income funds increased by a greater amount than equity funds, and this occurred despite the market appreciation of approximately 12 percent in the value of equity investments of common trust funds. The share of diversified funds devoted to equities increased in 1964, but this increase was more than accounted for by the increase in equity prices. Thus, with respect to investment decisions undertaken by common trust fund managers in 1964, there was a slight tendency to favor fixed-income over equity investments.[4]

II. *Common Trust Funds and Bank Size*

Common trust funds, like trust assets generally, tend to be concentrated in larger banks. Table 4 shows the distribution of common trust fund accounts and assets according to bank size. Banks having assets of less than $100 million (June 1964 call report) accounted for 43 percent of the number of banks having common trust funds, about one-third of the number of common trust funds, but only about 8 percent of their assets. Table 5 indicates that the average account participation also tends to be smaller for smaller banks.

Despite the apparent validity of the generalization that large trust departments are concentrated in large banks, there are a number of moderate-sized banks with very large trust operations; and, in a number of instances, such banks have larger trust operations than commercial banking operations. At the end of 1964, ten trust companies carrying on virtually no commercial banking business operated 25 common trust funds with assets of $339 million.[5]

[4] For some trust accounts, tax-exempt securities are a logical alternative to equities, and it is conceivable that some of the growth in tax-exempt investment reflects this slight shift away from equities.

[5] Three of these trust companies are in Hawaii where commercial banks do not have trust powers. Three of the other trust companies are

Table 4
Common Trust Funds by Size of Bank for 1964*

Size of bank ($ millions)	Number of banks	Number of funds	Number of participations	Total assets of funds ($ millions)	Average size of funds ($ thousands)	Average size of participation ($ thousands)
Less than 99.9	180	265	33,000	487.9	1,841	14.8
100 to 499.9	155	284	73,700	1,431.1	5,039	19.4
500 to 999.9	40	107	48,500	1,448.9	11,541	29.9
Over 1,000.0	34	107	62,600	2,147.3	20,068	34.3
Trust companies	10	25	10,300	339.0	13,560	32.9

* The figures in this table were derived on the same basis as those in Tables 1 and 2.

Tax-exempt funds are operated primarily by larger banks. These funds account for approximately 20 percent of the common trust fund assets of banks with commercial banking assets of more than $1 billion, while they comprise only about 2 percent of the common trust fund assets of banks with commercial banking assets of less than $100 million. The distribution of the remaining common trust fund assets does not seem to be significantly affected by bank size. One exception appears to be the fact that smaller banks make a somewhat greater use of mortgages in fixed-income and diversified funds than do larger banks.

Table 5 lists the number of banks operating common trust funds, number of funds, number of accounts and common trust fund assets, by states, for 1963 and 1964. Banks in New York and Pennsylvania accounted for almost 20 percent of the number and almost 40 percent of the assets of common trust funds. The Middle Atlantic and New England states accounted for more than 56 percent of the assets of common trust funds, although the assets of common trust funds have been growing more rapidly in such states as California, Illinois and Michigan.

affiliates of commercial banks. Included among banks operating common trust funds is a mutual savings bank in New Jersey which operates two funds.

III. *Common Trust Fund Performance*

Common trust funds have been playing an increasing role in bank trust operations in recent years, both in absolute and relative terms. Nevertheless, common trust funds still account for only about 5 percent of the trust assets where banks and trust companies exercise investment responsibility.[6]

The managers of common trust funds are typically the same individuals who formulate policy for overall trust department investments. Since the published data available on common trust funds far exceed that available on other trust investments, there is substantial interest in the examination of common trust fund investment behavior with the view toward generalizing about overall trust investment performance. However, such generalizations should not be pushed *too* far. The overall asset composition of common trust funds *does* differ significantly from that of the larger personal trusts. The latter typically start out with a given asset mix, indicated preferences, and many special factors pertaining to the beneficiary, his tax status, etc.

[6] For estimates of the market value of bank trust assets, see Stanley Silverberg, "Bank Trust Investments: Their Size and Significance," *The National Banking Review*, 1, June 1964, pp. 577-598.

Table 5
Common Trust Funds by States, 1963 and 1964*

State	Number of banks with common trust funds		Number of common trust funds		Number of account participations		Total assets of funds ($ millions)		1963-64 increase in assets (per cent)
	1963	1964	1963	1964	1963	1964	1963	1964	
Alabama	4	5	4	6	794	1,373	14.0	15.8	12.9
Alaska	0	0	0	0	0	0	0	0	0
Arizona	4	5	9	11	949	1,889	34.5	50.8	47.2
Arkansas	3	3	3	3	571	675	5.9	7.8	32.2
California	11	11	21	27	14,030	17,693	276.5	375.3	35.7
Colorado	11	11	18	22	4,385	5,315	106.8	134.7	26.1
Connecticut	10	10	15	15	3,804	4,070	108.7	126.1	16.0
Delaware	3	3	4	4	2,166	2,200	79.0	85.0	7.6
District of Columbia	4	4	6	6	2,061	2,227	54.9	68.5	24.8
Florida	14	15	22	24	2,258	2,715	37.8	52.5	38.9
Georgia	6	6	11	12	3,220	4,277	73.3	92.1	25.6
Hawaii	3	3	6	7	975	1,063	16.4	19.6	19.5
Idaho	1	1	1	1	27	71	.3	.7	133.3
Illinois	10	10	18	26	4,584	6,832	172.3	274.9	59.5
Indiana	9	9	9	9	1,571	1,676	24.8	29.3	18.1
Iowa	1	2	1	2	83	170	1.1	1.6	45.5
Kansas	2	3	4	6	264	375	3.5	6.2	77.1
Kentucky	5	6	8	8	1,856	1,906	21.1	28.8	36.5
Louisiana	1	1	1	1	122	171	2.0	2.7	35.0
Maine	6	6	12	12	1,800	2,200	38.5	51.3	33.2
Maryland	6	6	13	14	5,000	5,843	96.9	132.3	36.5
Massachusetts	19	19	35	36	9,650	10,877	349.1	435.3	24.7
Michigan	12	13	20	26	3,286	4,901	43.1	96.0	122.7
Minnesota	8	8	18	20	3,002	3,902	51.2	69.3	35.4
Mississippi	2	2	2	2	482	527	5.6	6.8	21.4
Missouri	9	9	19	21	7,405	8,815	178.8	225.2	26.0
Montana	2	2	4	4	336	426	3.3	4.9	48.5
Nebraska	3	3	5	5	723	858	16.3	20.1	23.3
Nevada	1	1	2	2	285	297	3.3	5.1	54.5
New Hampshire	4	4	5	7	217	361	8.8	12.9	46.6
New Jersey	13	13	25	25	6,219	7,052	73.5	87.8	19.5
New Mexico	2	2	3	3	696	795	9.9	13.5	36.4
New York	22	23	70	73	21,001	24,351	898.7	1,152.4	28.2
North Carolina	8	9	11	15	3,214	6,663	99.1	129.7	30.9
North Dakota	1	1	3	3	227	255	1.9	2.2	15.8
Ohio	21	22	41	43	5,812	7,300	162.6	207.5	27.6
Oklahoma	3	4	6	10	588	838	15.2	21.2	39.5
Oregon	4	4	7	10	3,197	3,956	60.8	74.2	22.0
Pennsylvania	57	63	98	105	49,746	53,114	985.0	1,154.2	17.2
Rhode Island	3	3	8	8	1,296	1,361	29.8	35.1	17.8
South Carolina	3	3	7	7	1,267	1,551	14.6	17.7	21.2
South Dakota	4	5	7	9	348	529	2.5	4.4	76.0
Tennessee	9	9	10	12	1,756	2,069	30.3	63.5	109.6
Texas	18	22	22	30	3,717	5,114	75.7	107.9	42.5
Utah	4	4	8	8	1,500	1,700	14.5	18.6	28.3
Vermont	6	6	9	9	578	625	6.2	7.2	16.1
Virginia	19	21	33	37	5,600	6,751	91.4	140.7	53.9
Washington	3	5	7	12	3,532	4,268	60.6	84.9	40.1
West Virginia	6	7	6	7	794	865	9.5	11.7	23.2
Wisconsin	11	12	16	23	4,340	5,080	70.2	88.2	25.6
Wyoming	0	0	0	0	0	0	0	0	0
Total U.S.	391	419	693	788	191,334	228,142	4,539.8	5,854.2	29.0

* Figures are derived on the same basis as those in Tables 1 and 2.

In evaluating common trust fund performance, it should be realized that banks and trust companies are acting as trustee with certain fiduciary and legal responsibilities, and that safety of principal tends to receive greater emphasis than in certain investment advisory accounts where ultimate responsibility rests with the owner and beneficiary of the account. Consequently, trust assets tend to be invested conservatively, and it may be expected that growth and income will be sacrificed to some degree in order to assure greater stability of income and principal.

Banks and trust companies submitting survey reports on common trust funds were asked to supply data on their fund's unit value for the last valuation date in 1964, the unit value for the comparable date in 1963, and the income distribution per share during that 12-month period. For those funds that were in operation long enough to have a valuation in the last quarter of 1963, percentage appreciation and yield were computed. (The yield was measured by dividing income per unit by the unit value for the last valuation date in 1963.) Those funds that were split or did not present comparable year-to-year data for various reasons were eliminated from the performance sample. Tables 6 and 7 summarize the performance of common trust funds.

Table 6 shows the high, low, and median price appreciation for equity and diversified funds, along with the price performance of Standard and Poor's 500 stock series. Equity funds tended to under-perform the market averages slightly —approximately the same conclusion reached in a similar survey covering common trust fund performance for a smaller number of funds to the end of 1963.[7] These comparisons should be qualified somewhat. Any stock price series assumes continuous 100 percent investment and no brokerage charges. As long as common trust funds grow through additions to participating accounts and units, periods will exist when funds are not 100 percent invested, and this will tend to penalize investment performance in a rising market. In addition, brokerage charges (at least one percent of equity transactions on the New York stock exchange) will reduce performance—and a rapidly growing common trust fund will have a high ratio of transactions to assets even if it does little selling of previously acquired securities.[8] Finally, the conservative character of common trust fund investments may tend to produce less-than-average performance when the stock market is especially strong. About one-third of common trust equities are in stocks of utilities, banks and other financial firms. This represents a higher share of these more conservative equity investments than the weight that such investments receive in any of the popular stock price indexes.

Price appreciation for diversified funds averaged approximately half that of equity funds, reflecting the equity-fixed income mix of such funds (at the end of 1963, diversified funds had an average equity investment of 55 percent). While most diversified funds do not deviate substantially from the average with respect to their share of equity investment, a minority of such funds are heavily invested in equities or fixed-income investments, and this accounts for some of the wide variation in price appreciation of equity funds.

Twelve months is too short a period for any very meaningful evaluation of common trust fund performance. If many equity common trust funds *are* more defensive in character than the composition

[7] *Ibid.*, pp. 594-596.

[8] The exception would be the case where trust account investments are exchanged for common trust fund participations.

Table 6
Appreciation of Equity and Diversified Funds in 1964*

Item	Month of Last Valuation Date		
	October	November	December
Equity			
Number of Funds	87	56	29
Price Appreciation			
Highest	19.5	20.1	20.4
Lowest	6.2	7.1	7.7
Median	12.7	13.6	11.5
Standard and Poor's 500 Stocks	14.7	15.3	13.0
Diversified			
Number of Funds	154	68	37
Price Appreciation			
Highest	17.2	14.2	17.5
Lowest	2.3	3.9	1.5
Median	6.4	7.6	6.5

* The figures in this table measure the percentage appreciation of equity and diversified common trust funds for the 12-month period preceding the fund's last valuation date in 1964.

Table 7
Common Trust Fund Yields in 1964*

Type of Fund	Number	Yield		
		High	Low	Median
Equity	171	4.26	1.87	3.22
Diversified	261	4.83	2.94	3.87
Fixed-Income	158	5.22	3.39	4.27
Tax-Exempt	37	3.55	2.73	3.15

* The figures in this table measure the average coupon yield realized during the 12-months preceding each fund's last valuation date in 1964.

of the market averages, we would expect those funds to perform better than market averages in periods of market weakness. It is only over a period of several years which includes both falling and rising equity prices that one can attempt to evaluate the price performance of common trust funds—and that performance should be measured in terms of their investment goals.

Funds used in the performance sample were grouped according to bank size and common trust fund size, in order to determine whether size related to price performance of equity and diversified funds. In general, there appeared to be little relationship between bank size and price appreciation. However, there appeared to be a slight tendency for smaller common trust funds—those having assets of less than $1 million—to perform below average, although many individual funds in that size category performed exceedingly well. Eliminating funds with assets of less than $1 million would have raised the median price appreciation of equity and diversified funds in five of the six cases in Table 6 and left the median unchanged in one case.

Table 7 lists the high, low, and median yields for each of the four types of funds. Yields on fixed income investments tend, on balance, to be slightly understated since they are comparable to coupon

yields which are likely to be a shade *below* yields-to-maturity.[9] Nevertheless, it seems apparent that most fixed-income funds are quite conservatively invested. The median yield of fixed-income funds was slightly lower than the average yield available on Aaa corporate bonds during the last quarter of 1963, and similar investments made after the last valuation date in 1963 would have afforded still higher yields. While holdings of Treasury bonds lowered yields on fixed-income funds somewhat, it is apparent from their modest yields that many funds have invested primarily in the highest quality corporate bonds.[10]

Yields on tax-exempt funds also suggest reliance primarily on high quality bonds in the Aaa and Aa range. Equity yields of common trust funds averaged slightly above those of the Standard and Poor's averages, and this also may be consistent with relatively conservative investment policies.

[9] This would be the case as long as bond prices average less than par. A more accurate measure of yield on fixed-income funds would include both realized income and price appreciation over a period covering a number of years.

[10] Recently, common trust funds have shown increasing interest in corporate private placements where interest returns tend to be somewhat higher than on top-rated corporate bonds.

► HSIU-KWANG WU

Corporate Insider Trading in the Stock Market, 1957-1961

I. *Introduction*

"Corporate insiders"—that is, the officers, directors and principal stockholders of a corporation—have been regarded by some economists as "classical speculators" *par excellence* in their company stock. The purpose of this paper is to examine empirically the trading behavior of these corporate insiders and the effects of their trading on the stock market.

It is widely believed that the officers, directors and principal stockholders of a corporation are able to gain "inside" information and thus forecast future prices of their company shares more accurately than the general public. On this basis, it is said, they are capable of realizing speculative profits through purchases at low prices, or sales at high prices, in relation to expected prices. This paper is directed to the following questions: (1) Do insiders trade actively in the market for the stock of their corporations? (2) How do insiders behave during price fluctuations? Do they generally behave as if they have superior information by purchasing shares at or near the price trough and by selling them at or near the price peak? (3) Has insider trading had any effects on stock prices?

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II. *The Data*

During the period covered by this study, the regulation of insider trading in

the stock market in the United States was based on Section 16 of the Securities Exchange Act of 1934. Under that Act (as amended to August 10, 1954), the officers, directors and owners of more than ten percent of any class of outstanding stock of a corporation whose equity security was registered on a national securities exchange were required to report the holdings of their company stock to the exchange and to the Securities and Exchange Commission.[1] The data available in connection with this regulation have certain limitations for the purposes of this study. Insiders of a corporation whose equity security was traded on over-the-counter markets were excluded from the regulation at that time, and data are therefore not available for these securities. Second, the corporate title of an individual may not accurately reflect his inside knowledge, nor may the "ten-percent" rule. Third, insiders may supply inside information to others which may be used for speculative purposes. It is also conceivable that insiders will exchange inside information among themselves and speculate in the stocks of other companies on the basis of inside information provided by their counterparts in those companies. Finally, the reported data are published monthly by the Securities and Exchange commission only in summary form.[2] Shares acquired through stock splits, stock dividends, rights, and gifts are omitted from the summary. Data on total trading (sum of purchases and sales) of less than one hundred shares by an insider in a given month are also omitted. Frequently, reports are not filed correctly until many months after the transactions have occurred. For example, of 31,003 reports filed in 1956, 1,678 were amended reports.[3] Nevertheless, these data represent the only comprehensive information available, and the present study, which is based on these data, is confined to common stock listed on the New York Stock Exchange.

III. *Insider Share Ownership and Trading Volume*

Since section 16(c) of the Securities Exchange Act of 1934 prohibits insiders from selling short, willingness to own shares is a prerequisite for active trading in the stock market by insiders. Thus, to determine the extent and the effects of insider trading, it is first necessary to ascertain the importance of their stock holdings. For this purpose, two independent random samples of 100 companies each were selected from those companies whose common stocks were listed on the New York Stock Exchange as of December 1960 and December 1935, respectively. The extent of insider stock ownership in these sample companies is summarized in Table 1. In both samples, insider ownership was substantial. For all insiders as a group, ownership of common stock in the 100-company sample as of December 1960 amounted to 34,157,784 shares, or 6.84 percent of the total shares outstanding. For the 1935 sample, it amounted to 20,370,289 shares, or 8.52 percent. Among insider groups, the corporations which were principal stockholders had the largest percentage of ownership; they owned

[1] These requirements included a report on intra-monthly changes to be filed within ten days after the end of the month in which they took place.

The Securities Exchange Act of 1934 was amended effective August 20, 1964. The 1964 amendments widened the scope of insider regulations. Now, Section 16 is applicable to the officers and directors of issuers of securities registered under the Securities Exchange Act, and to beneficial owners of more than 10% of the outstanding securities of a registered class.

[2] *The Official Summary of Security Transactions and Holdings.*

[3] Securities and Exchange Commission, *Annual Report*, 1956, p. 101.

Table 1

Insider Ownership of Common Stock as Percent of Total Number of Common Shares Outstanding in Sample of 100 Listed Companies, 1935 and 1960

Insider Stockholder	December 1935 %	December 1960 %
Directors	1.78	1.38
Officers	0.30	0.26
Officer-Directors	0.98	1.31
Principal Owner (Corp.)	4.74	2.82
Principal Owner (Ind.)	0.43	0.28
Principal Owner (Officer and/or Director)	0.29	0.79
All Insiders	8.52	6.84

Table 2

Annual Insider Market Purchases and Sales in the Common Shares of 50 Listed Companies, 1957-1961 (Shares)

Year	Officer, Officer-Principal Owner	Director, Director-Principal Owner	Officer-Director, Officer-Director-Principal Owner	Principal Owner	All Insiders
1957					
Purchases	40,989	58,530	23,697	29,800	153,016
Sales	20,097	105,456	55,124	6,500	187,177
Net Sales	−20,892	46,926	31,427	−23,300	34,161
1958					
Purchases	28,231	81,069	64,032	77,600	250,932
Sales	39,724	154,655	48,045	8,300	250,724
Net Sales	11,493	73,586	−15,987	−69,300	−208
1959					
Purchases	53,007	37,955	90,239	30,700	211,901
Sales	71,521	110,018	77,279	16,500	275,318
Net Sales	18,514	72,063	−12,960	−14,200	63,417
1960					
Purchases	28,874	35,472	53,478	12,100	129,924
Sales	81,107	117,674	77,783	16,750	293,314
Net Sales	52,233	82,202	24,305	4,650	163,390
1961					
Purchases	31,955	16,819	20,639	000	69,413
Sales	80,520	109,276	48,458	79,598	317,852
Net Sales	48,565	92,457	27,819	79,598	248,439
Five year Total					
Purchases	183,056	229,845	252,085	150,200	815,186
Sales	292,969	597,079	306,689	127,648	1,324,385
Net Sales	109,913	367,234	54,604	−22,552	509,199

about 4.74 percent of the total shares outstanding in 1935, and 2.82 percent in 1960. The officer group in general had the lowest percentage of ownership; it owned 0.30 percent in 1935, and 0.26 percent in 1960.

The present study of insider trading volume is based on a sample of 50 companies and covers the five-year period from 1957 to 1961. Among the 100 companies in the 1960 stock ownership sample, only 77 companies were in existence throughout the period. The 50 companies were selected at random from these 77 companies.[4] Insider market trading of these companies is summarized in Table 2 and Table 3. Attention was directed only to ordinary market transactions; non-market transactions, such as the exercise of stock options, or gifts, were excluded.

Total market purchases by insiders in the sample amounted to 815,186 shares, and total market sales amounted to 1,324,385 shares; thus, there was a net sale balance of 509,199 shares. In view of the wide use of stock options as a method of executive compensation, substantial insider net market sales are not surprising. Often insiders have shares to sell which were obtained through such non-market means. There is some evidence in our data to support this thesis (see Table 2). Principal stockholders who are not officers, and hence are not eligible for stock option plans and other compensation schemes, were the only insider group which had net purchases for the period as a whole; moreover, they had net purchases in three years out of the five. In contrast, all other insider groups had relatively large net sales for the period. Only the officer-director group had net purchases in two years, and the officer group had net purchases in one year.

In order to ascertain the possible effects of these insider non-market acquisitions (all acquisitions reported in the Official Summary with the exception of market purchases) on subsequent insider sales, a simple regression was computed for the period covered by the sample. Monthly insider sales volume was used as the dependent variable, and monthly insider non-market acquisitions of six months earlier as the independent variable. The six-months time lag between the sales variable and the non-market acquisitions variable is designed to reflect the legal restriction provided by section 16(b) of the Exchange Act.[5] The adjusted coefficient of determination for the regression is .27 and is significantly different from zero at a .01 level.[6] This indicates that from these monthly data insider non-market acquisitions of six months earlier have an effect on current insider sales. However, the effect is moderate. Only about 27 percent of the variance of insider monthly sales can be explained by the insider non-market acquisitions of six months earlier.

The total volume of insider trading (purchases plus sales) of the 50 sample companies for the five-year period amounted to 2,139,571 shares, which represented only about one percent of the total trading volume of these 50 companies on the New York Stock Exchange (Table 3). If we look at the annual data, insider trading as a percent of total trading was very stable and fluctuated around

[4] For a list of these companies, see the Appendix.

[5] Section 16(b) of the Securities Exchange Act of 1934 provides that any profits made by insiders from any purchase and sale (or any sale and purchase) of the company shares within a period of six months must be returned to the corporation.

[6] The regression equation is:

$$S_t = 117.53 + .3721\ (NA)_{t-6} \qquad \bar{R}^2 = .267$$
$$(.0011)$$

S_t represents monthly insider market sales (in hundreds of shares) at the month t; NA_{t-6} represents monthly insider non-market acquisitions (in hundreds of shares) at the month t-6.

Table 3

Annual Insider Market Trading Volume in the Common Shares of 50 Listed Companies, 1957-1961 (Shares)

Year	Officer, Officer-Principal Owner	Director, Director-Principal Owner	Officer-Director, Officer-Director-Principal Owner	Principal Owner	All Insiders
1957					
Volume*	61,086	163,986	78,821	36,300	340,193
% of total volume†	0.23	0.62	0.30	0.14	1.28
1958					
Volume	67,955	235,724	112,077	85,900	501,656
% of total volume	0.16	0.54	0.26	0.20	1.15
1959					
Volume	124,528	147,973	167,518	47,200	487,219
% of total volume	0.24	0.29	0.32	0.09	0.94
1960					
Volume	109,981	153,146	131,261	28,850	423,238
% of total volume	0.26	0.37	0.32	0.07	1.02
1961					
Volume	112,475	126,095	69,097	79,598	387,265
% of total volume	0.23	0.26	0.14	0.17	0.80
Five year total					
Volume	476,025	826,924	558,774	277,848	2,139,571
% of total volume	0.23	0.39	0.26	0.13	1.01

* Volume equals insider purchases plus insider sales.

† Insider volume as percent of total trading volume of the 50 companies on the New York Stock Exchange. Available volume data does not include trading of listed stocks off the Exchange (the so-called "third market"). Thus, the percentages in the table overstate somewhat the importance of insider trading.

the one percent level, ranging from 0.8 percent to 1.3 percent. Among insider groups, the category of "director" consistently had the highest percentage of trading throughout this period, and that of "principal stockholder" had the lowest.

These findings indicate that insider sales, which were generally greater than insider purchases, were to some extent determined by the volume of previous non-market acquisitions rather than strictly by current prices. Moreover, a comparison of stock ownership data and trading data shows that insiders were relatively inactive in the market. Insiders as a group owned about 6.8 percent of the total number of the outstanding shares in 1960; their trading, however, constituted only about one percent of the total trading volume between 1957 and 1961.

Nevertheless, the effects of insider trading on the market should not be underestimated. It is logical to assume that insider trading has effects on public expectations and, consequently, on public trading behavior in the market. Some non-insiders may realize the advantage of insiders in trading and try to follow their market behavior. In order to ascertain the magnitude and the extent of this "induced effect" of insider trading, a

number of regressions were computed. The result is presented below:

$$V_t = 1379.2557 + .4104\,I_t + .6157\,V_{t-1} \quad \bar{R}^2 = .380$$
$$(6.5727) \quad (.1077)$$

V_t represents the monthly public trading volume (in thousands of shares) of the sample companies at month t; the public trading volume was derived by subtracting the sum of insider purchases and sales from the total trading volume. I_t represents the insider trading volume (in thousands of shares) of the sample companies at month t; the insider trading volume is the sum of insider purchases and insider sales. The figures in parentheses below the coefficients are their standard errors; $\bar{R}^2$ is the adjusted coefficient of determination. Since the induced trading effect may take time to manifest itself in the market, particularly under the present method of reporting insider trading activities, insider volume of two preceding months and the cumulative total of these months were also introduced in the equations. The results were:

$$V_t = 2037.9294 + 5.3422\,I_t + 3.7362\,I_{t-1} + .3434\,V_{t-2} \quad \bar{R}^2 = .118$$
$$(7.8422) \quad (8.0187) \quad (.1261)$$

$$V_t = 1882.5641 + 7.8954\,I_t + 4.4365\,I_{t-1} + 3.7829\,I_{t-2} + .3163\,V_{t-3} \quad \bar{R}^2 = .106$$
$$(7.8486) \quad (8.0932) \quad (8.0000) \quad (.1269)$$

$$V_t = 1913.3807 + 5.3844 \sum_{t-2}^{t} I_t + .3072\,V_{t-3} \quad \bar{R}^2 = .136$$
$$(3.8210) \quad (.1221)$$

These equations were designed to determine the possible effects of insider trading on public trading only. The lagged public trading volume variables were introduced in the equations as independent variables to hold constant the other factors which are not explicitly considered by the equations, and under certain assumptions to make possible a separation of the long-run and the short-run effects. Since there is no theoretical reason why the form of the equations should not be linear, only linear equations were used. None of the regression coefficients of the insider volume variables in the equations are significant. Therefore, we conclude that in these monthly data there is no evidence of an induced effect of insider trading on the stock market.

IV. *Insider Market Behavior during Stock Price Movements*

The sample for studying insider market behavior during stock price movements comprised the same 50-company sample used in the preceding section. For the purpose of comparison, a monthly series of stock price averages of these 50 companies was calculated from the monthly high and low prices of each company. Since there were both insiders as purchasers and insiders as sellers in each of the months of our sample, attention will be given to insider net sales (or purchases). It is reasonable to assume that price must be the major consideration in all share transactions; consequently, insider net sales (or purchases) can be used as an indicator of the average reaction of the insider group to stock price movements. Furthermore, the effects of insider purchases on the market can be cancelled out by the opposite effects of the same amount of simultaneous insider sales. Therefore, for the purpose of determining the effects of insider trading behavior on the market, only a study of insider net sales (or purchases)—and not a separate study of both purchases and sales—need be made.

Our analysis, which will examine insider market behavior during different

types of market movements, consists of three stages. The relationship between insider trading and monthly stock price changes will be examined first, since monthly stock price changes are the shortest price movements available for the present study. Second, attention will be given to insider trading behavior during intermediate price movements, especially when prices are rising and declining constantly; insider market behavior at market turning points will also be examined. Finally, the relationship between insider trading and long-run price movements will be investigated. For this purpose, the five years in the sample will be treated as a single period.

The relationship between monthly direction of movement of the stock price average of each company in the sample and insider monthly net sales (or purchases) of the corresponding company is summarized in a contingency table (Table 4(a)). Among 1,175 observations contained in the sample, there were 704 months of price advance and 471 months of price decline.[7] Insiders had net sales in 418 of the 704 months of price advance. If we define trading against the market as price-stabilizing, then, during the months of price advance, insider trading can be considered as price-stabilizing about 59 percent of the time. During 471 months of price decline, insiders traded against the market in only 240 months (or about 50 percent of the time). In order to determine whether insider trading was definitely related to the monthly stock price movements, the chi-square test of independence was applied to the contingency table. The chi-square value is significant at a .01 level. This indicates that there is some evidence of association between the direction of the monthly price movement and insider monthly net sales (or purchases).

Since some of the principal stockholders are corporations rather than individuals, and there is also some general interest in management trading behavior alone during monthly price movements, principal stockholder trading data were excluded from the insider trading data contained in the contingency table. The results are presented in Table 4(b). It was found that management trading behavior during monthly price movements did not vary a great deal from total insider trading behavior. Management had 412 net sale balances in 692 months of price advance. In 466 months of price decline, management had only 238 net purchase balances. The chi-square value of the management trading table is also

[7] The months in which no insider trading was found were omitted from the sample.

Table 4(a)

Contingency Table Between Direction of Stock Price Movements and Insider Net Sale Balances of 50 Listed Companies Monthly Data, 1957-1961

Direction of Stock Price Movements	Sign of Insider Net Sale Balance		Total
	Positive	Negative	
Increase	418	286	704
Decrease	231	240	471
Total	649	526	1,175

Note: Chi-square value (with Yates' correction for continuity) was found significant at the .01 level.

Table 4(b)

Contingency Table Between Direction of Stock Price Movements and Management Net Sale Balances of 50 Listed Companies, Monthly Data, 1957-1961

Direction of Stock Price Movements	Sign of Management Net Sale Balance		Total
	Positive	Negative	
Increase	412	280	692
Decrease	228	238	466
Total	640	518	1,158

Note: Chi-square value (with Yates' correction for continuity) was found significant at the .01 level.

Table 5

Insider Trading Behavior in the Common Shares of 50 Listed Companies During Major Market Movements, 1957-1961

Market Movements	Net Sales (Shares)	Ratio of Purchases to Sales (%)	Ratio of Insider Trading to Total Trading (%)	Percent Change in 50-Stock Price Average	
				Total	Per Month
Periods of Rising Market					
April 1957-June 1957	18,654	65.66	1.33	6.09	2.03
April 1957	6,243	78.02	2.16	3.25	3.25
May 1957	8,202	59.71	1.31	2.68	2.68
June 1957	4,209	26.03	0.37	0.05	0.05
December 1957-March 1959	7,020	98.01	1.19	64.59	4.04
December 1957-April 1958	17,897	74.82	0.98	12.72	2.54
May 1958-October 1958	24,675	83.23	1.08	23.38	3.90
November 1958-March 1959	−35,552	126.59	1.45	18.34	3.67
November 1960-March 1961	217,925	14.67	1.39	24.76	4.95
November 1960-December 1960	79,039	20.26	1.86	7.02	3.51
January 1961	15,978	40.41	0.87	4.19	4.19
February 1961-March 1961	122,908	5.02	1.32	11.89	5.94
Periods of Declining Market					
August 1957-October 1957	1,207	97.14	1.24	17.18	5.73
August 1957	10,810	40.54	1.28	5.87	5.87
September 1957	476	96.40	1.48	5.39	5.39
October 1957	−10,099	197.89	1.07	7.01	7.01
August 1960-September 1960	21,660	41.35	0.75	4.91	2.46

significant at a .01 level. In summary, these data suggest that insiders' monthly net sale balances in the sample period were in some degree associated with the months of price advance, being somewhat more frequent in rising markets and somewhat less frequent in falling markets than might be expected on the basis of chance alone.

Our next stage of analysis was to determine insider trading behavior during periods of sustained market decline, periods of sustained market advance, and at major market turning points of the 50-stock price average. For the five-year period, three rising markets and two declining markets were chosen. Since the market for the period as a whole can be characterized as a "bull" market, the two declining markets were rather short in duration. Each advancing or declining market period was selected in such a way that the month of the price peak and the month of the price trough were excluded. Separate analysis was undertaken for these months of market turning points. If the period was more than two months in duration, sub-sections were designated for detailed analysis within the period. Because of the fact that insider sales were usually larger than insider purchases, ratios of insider monthly purchases to insider monthly sales were also calculated, and in some cases these ratios proved more meaningful than the net sale (or purchase) variable. The data for insider trading behavior during these periods are presented in Table 5.

During the moderate rising market of April 1957 to June 1957, the 50-stock price average increased about two percent per month. Insiders had net sales

throughout this three-month period, and total insider purchases were about 66 percent of total insider sales. Thus, insider trading in this rising market can be considered as price-stabilizing. However, for the rising market from December 1957 to March 1959, when the stock price average increased about four percent per month, insider net sales amounted to only 7,020 shares. The ratio of insider purchases to insider sales was very large, about 98 percent. In the sub-period of November 1958 to March 1959, especially, insiders made a substantial amount of purchases; the net purchases for this period amounted to 35,552 shares. These net purchases during a rising market cannot be considered as price-stabilizing.

During the rapidly advancing market from November 1960 to March 1961, the stock price average increased about five percent per month. In this period, insider trading can be characterized as price-stabilizing. Insiders made substantial net sales which amounted to 217,925 shares, and the insider purchases-sales ratio was about 15 percent. For the sub-period of February 1961 to March 1961, when the stock price average increased about six percent per month, the ratio of insider purchases to insider sales dropped to about five percent, and insider net sales amounted to 122,908 shares, which accounted for more than one-half of the total net sales (217,925 shares) made by insiders for the entire period (November 1960-March 1961).

For the two declining markets in the sample, insiders had net sale balances which were price-destabilizing. However, for the period from August 1957 to October 1957, the insider net sale balance was small; it amounted to only 1,207 shares. In fact, in the month of October 1957, insiders traded against the market with a net purchase balance in the amount of 10,099 shares. Finally, it should be noted that insider trading volumes as percents of total trading volumes in these rising and declining markets were not substantially different from these relationships for the whole five-year period—about one percent. This again indicates that insiders were not very active in the market even in times of sustained price movements. Management trading data during these rising and declining markets are also available, and the trading pattern revealed is not significantly different from the trading behavior of insiders as a group.

Insider behavior at major market turning points is summarized in Table 6. In two of the three price-peak months covered, insiders had net purchase balances. At the remaining peak, insider net sales were quite small and amounted to only 4,322 shares. These substantial insider purchases at price peaks appear to have been price-destabilizing. However, in the month preceding the peak month and in the month after the peak month, insiders had substantial amounts of net sales for all the peaks in the sample. If the three months centered on the peak were taken as a single period, with the exception of the June-July-August 1957 peak, the insider net sales were substantial and consequently can be considered as price-stabilizing. At the three price trough months in the sample, insiders had net sale balances. Taking the three months centered on the trough as a single period, there were substantial insider net sales in two out of three trough periods. Thus, from these data, there is some evidence that insider trading around troughs was price-destabilizing. Management also behaved similarly to insiders in these market turning points.

This analysis does not provide conclusive evidence as to whether insiders and management behaved consistently during major market movements and at market turning points. However, it should be noted that insider and management trading was more price-stabilizing during rising markets and at price peaks than dur-

Table 6

Insider Trading Behavior in the Common Shares of 50 Listed Companies During Major Market Turning Points, 1957-1961

Turning Points	Net Sales (Shares)	Ratio of Purchases to Sales (%)	Ratio of Insider Trading to Total Trading (%)	Percent Change in 50-Stock Average (%)
Peak Months				
June 1957	4,290	26.03	.38	0.05
July 1957*	−18,370	236.61	2.09	1.01
August 1957	10,810	40.54	1.28	−5.87
March 1959	14,239	59.89	1.25	3.39
April 1959*	−169	100.84	1.06	4.78
May 1959	840	94.20	.75	−2.45
June 1960	13,177	54.79	1.30	3.48
July 1960*	4,322	79.35	1.40	0.59
August 1960	12,972	49.03	1.15	−2.61
Trough Months				
October 1957	−10,099	197.89	1.07	−7.01
November 1957*	34,426	20.49	2.33	−1.92
December 1957	−4,850	136.60	1.18	1.17
March 1960	2,005	85.85	.65	−0.78
April 1960*	1,043	94.77	1.27	−1.84
May 1960	10,720	43.64	.69	3.86
September 1960	8,688	24.31	.39	−2.36
October 1960*	8,658	23.21	.57	−3.00
November 1960	31,417	12.97	2.29	1.58

*Peak months or trough months.

ing declining markets and at price troughs. Of course, this result is partially due to the fact that total insider purchases were substantially less than total insider sales in this five-year period. Finally, it should again be pointed out that insider trading volume did not increase substantially at these market turning points.

Annual insider trading data and the data for the entire five-year period were examined to ascertain insider trading behavior during long-term price movements. As was pointed out earlier, the five-year period can be characterized as a long-term rising market; no dramatic market breaks or prolonged market declines such as those experienced in the Twenties and Thirties and in 1962 occurred during these five years. Except for a slight decline in 1957 and some other minor setbacks, the 50-stock price average had been rising steadily and reached an all-time high in the last month of our sample, December 1961. In the first half of 1962, stock prices were declining, and a sharp market plunge occurred during a three-day period from May 28 to 31. The annual insider and management trading data are presented in Table 7.

For the five-year period as a whole, the 50-stock price average increased about 80 percent, or about 16 percent per year. Insiders as a group had a net sale balance in the amount of 509,199 shares, and their purchases-sales ratio was about 62 percent. The management net sale balance was slightly larger, about 531,751 shares, and the management purchases-sales ratio was slightly smaller, about 56 percent. Thus, for this five-year period, characterized by rising stock prices, insider

Table 7
Insider and Management Annual Trading Behavior in the Common Shares of 50 Listed Companies, 1957-1961

Year	Net Sales (Shares)	Ratio of Purchases to Sales (%)	Percent Change in 50-Stock Price Average* (%)
1957			−14.02
All Insiders	34,161	81.75	
Management	57,461	68.20	
1958			54.81
All Insiders	−208	100.08	
Management	69,092	71.50	
1959			6.77
All Insiders	63,417	76.97	
Management	77,617	70.01	
1960			1.75
All Insiders	163,390	44.30	
Management	158,740	42.60	
1961			26.10
All Insiders	248,439	21.84	
Management	168,841	29.13	
Five Year Total			80.66
All Insiders	509,199	61.55	
Management	531,751	55.57	

*In calculation of stock price changes for 1957 and the five-year period as a whole, the price average of December 1956 was extrapolated from the SEC stock price composite index.

and management trading can be considered as price-stabilizing.

If we look at the annual data, there is much stronger evidence to indicate that insiders (including management) had purchased their company shares at relatively low prices in 1957, 1958 and 1959 and sold them at higher prices in 1960 and 1961. For the two-year period of 1960-1961, insiders had net sales in the amount of 411,829 shares, which accounted for more than four-fifths of the total insider net sales for the five-year period as a whole. Management net sales for these two years were about three-fourths of the total management net sales of the whole period. In fact, 13 out of 14 insider monthly net purchase balances in the sample occurred in the first three years (1957-1959). For the management group, this was also the case; a majority of the monthly net purchases (9 out of 12) occurred in the first three years. Consequently, from these annual data, there is a strong indication that all insiders, including management, anticipated the market decline in 1962 and unloaded some of their shares at the price peak.

The average insider trading profits for these five years were also estimated. Under the reporting procedures of the SEC, all insider trading data in a particular class of securities are reported monthly in aggregate form. The exact dates of the transactions and the exact number of shares in each transaction are unknown. Therefore, the following method was used in estimating the average price per share at which insider net transactions for the sample period were effected. First, the number of shares of insider net trading balance of each company in each month was multiplied by the appropriate monthly stock price average of the company. Secondly, the resulting monthly values of insider net bal-

Table 8

Estimated Weighted Average Price Per Share for Insider Net Transactions in the Common Shares of 50 Listed Companies, 1957-1961

Insider Stockholders	Estimated Weighted Average Price Per Share	
	Net Monthly Purchases	Net Monthly Sales
All Insiders	$36.7	$53.8
Management Only	$34.7	$54.6

ances of these 50 companies over the period were summed separately for net sales and net purchases, and each sum was divided by the corresponding total number of shares involved, to obtain the weighted average price per share of insider net monthly sales, and of insider net monthly purchases for the period.[8] The results are presented in Table 8.

From our estimates, both insiders and management made substantial profits during the five-year sample period. On average, they sold their shares at a profit. For the insider group, the estimated average price per share of net monthly purchases was $36.7, and the estimated average price per share of net monthly sales was $53.8; an estimated profit of $17.1 per share was realized. For the manage-

[8] The method used for estimating the weighted average price per share of insider net monthly sales (or purchases) for the period can be expressed mathematically as follows:

1. Let P_{ij} = monthly stock price average of company i at month j;
   S_{ij} = the number of shares of monthly insider net sales (or purchases) of company i at month j;
2. Then $V_{ij} = P_{ij}S_{ij}$
3. The weighted average price per share of insider net monthly sales (or purchases)

$$= \frac{\sum_i \sum_j V_{ij}}{\sum_i \sum_j S_{ij}}$$

Table 9

Regression Estimates of the Effects of Insider Trading on Stock Prices, April 1957-December 1961 (Monthly Data)

$$K_t = \underset{}{.6426} + \underset{(.000012)}{.000017}\, S_t + \underset{(.0217)}{.9945}\, K_{t-1} \qquad \bar{R}^2 = .976$$

$$K_t = \underset{}{2.8253} + \underset{(.000026)}{.000013}\, S_t + \underset{(.000026)}{.000033}\, S_{t-1} + \underset{(.000026)}{.000036}\, S_{t-2} + \underset{(.0471)}{.9581}\, K_{t-3} \qquad \bar{R}^2 = .899$$

$$K_t = \underset{}{2.8120} + \underset{(.000011)}{.000027} \sum_{t-2}^{t} S_t + \underset{(.0464)}{.9581}\, K_{t-3} \qquad \bar{R}^2 = .902$$

$$K_t = \underset{}{.7574} - \underset{(.2726)}{.1776}\, (P/S)_t + \underset{(.0221)}{.9984}\, K_{t-1} \qquad \bar{R}^2 = .975$$

$$K_t = \underset{}{2.9212} - \underset{(.5899)}{.1666}\, (P/S)_t - \underset{(.5950)}{.2385}\, (P/S)_{t-1} - \underset{(.5874)}{.2141}\, (P/S)_{t-2} + \underset{(.0508)}{.9818}\, K_{t-3} \qquad \bar{R}^2 = .888$$

$$K_t = \underset{}{2.3150} - \underset{(.3821)}{.3225} \frac{\sum_{t-3}^{t} P_t}{\sum_{t-3}^{t} S_t} + \underset{(.0512)}{.9881}\, K_{t-3} \qquad \bar{R}^2 = .891$$

S = Insider monthly net sales (in thousands of shares);
P/S = Insider monthly purchases-sales ratio;
K = Monthly 50-stock price average.

ment group, the estimated average price per share of net monthly purchases was $34.7, and the estimated average price per share of net monthly sales was $54.6; an estimated profit of $19.9 per share was realized.

Did these insider market activities have any effect on stock prices in the sample period? From the analysis presented above, we know that insider trading volume for the sample period was relatively small, approximately one percent of the total trading volume; and there is no indication that their trading volumes increased substantially during major price movements or at price peaks and troughs. Additionally, there is no indication that public trading volume was affected by insider trading. Thus, substantial impact of insider trading on stock prices could not be expected. We also computed regression estimates of the effects of insider trading on stock prices similar to those computed above for "induced effects." The results are presented in Table 9.[9] With the exception of equation (3), all the regression coefficients of net sales and purchase-sales ratio variables are not significant. Therefore, the monthly data reveal little evidence that insider trading had any effect on stock prices in the sample period.

[9] This type of regression was extensively used by Irwin Friend and F. E. Brown in the determination of the impact of investment fund net purchases on stock prices. See Friend, Brown, Herman, and Vickers, *Study of Mutual Funds*, prepared for the SEC by The Wharton School of Finance and Commerce, University of Pennsylvania, 87th Congress, 2nd Session, 1962, Chapter VII.

Appendix

Insider Trading Sample Companies

Abbott Laboratories
Bayuk Cigars Inc.
Beaunit Mills
Black & Decker Mfg. Co.
Burroughs Corporation
Carrier Corporation
Cincinnati Milling Machine
Cleveland Electric Illuminating
Combustion Engineering
Consolidated Edison of New York
Crane Co.
Dan River Mills, Inc.
Deere & Co.
Eastern Stainless Steel Corp.
Equitable Gas Co.
Emerson Electric Manufacturing
Evans Products Co.
Family Finance Corp.
Fansteel Metallurgical Corp.
General Cable Corp.
General Foods Corp.
Hammermill Paper Co.
Hertz Corp.
Hewitt Robins, Inc.
Hotel Corporation of America
Household Finance Corp.
Interchemical Corp.
International Packers
International Telephone and Telegraph
Jewel Tea Co.
Kelsey Hayes Co.
Kennecott Copper Corp.
Kimberly Clark Corp.
Lehn & Fink Products Corp.
Lone Star Gas Co.
Lorillard, P., Co.
McCord Corp.
Mercantile Stores Co., Inc.
Minneapolis-Honeywell Regulator
Montana Power Co.
Napco Chemical
Pillsbury Co.
Potomac Electric Power
Rheem Manufacturing
Studebaker Packard Corp.
Swift & Co.
Toledo Edison
Union Electrical Co.
Westinghouse Electric
White Motor

► WILLIAM E. GIBSON

This paper presents the results of a first-hand study of compensating balance practices.

Compensating Balance Requirements

An important feature of commercial bank loans to business is the stipulation that the borrower shall maintain on deposit with the lending bank a specified percentage of the loan. In cases where a line of credit is granted, the compensating balance requirement may be related to the full line, the amount actually borrowed, or both. Depending upon the bank and borrower involved, the requirement may be satisfied by demand balances, active or dormant, or by time deposits. In this paper, I shall describe the causes and effects of compensating balance requirements, and present the results of a survey of these requirements.

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I. *Causes and Effects*

The maintenance of a portion of a loan on deposit at a bank involves a cost to the borrower unless these funds serve some other function while on deposit. A business which borrows $1,000 for nine months with, say, a 15 percent balance requirement has the use of only $850. If the nominal rate on the loan is 4½ percent, the effective rate would be 5.3 percent. Part or all of the funds the borrower uses to meet the balance requirement, however, may also serve as his working cash, especially since balance requirements often apply to average, not daily, balances.

There has been much discussion of the

reasons why banks impose compensating balance requirements. Some regard the requirement merely as a device for increasing the earnings of banks. It may be questioned, however, why a balance requirement would be chosen in preference to a higher interest rate. There may be legal limitations on the rate of interest, but balance requirements most frequently apply to prime or near-prime borrowers who pay rates far below the legal limit. Some bankers whom I questioned suggested that it is easier to require a compensating balance than it is to set a higher interest rate. This implies imperfect knowledge on the part of borrowers, in in fact other alternatives leave them equally well off.

It has also recently been suggested that compensating balance requirements are collusive arrangements which banks use to obtain additional profits under a prime rate convention.[1] These additional profits, the argument runs, are earned on all the loans that a bank makes, through the device of requiring all borrowers to maintain large balances. The studies which we shall describe below indicate, however, that balance requirements vary considerably from bank to bank, and a great many bankers maintain that their balance requirements tend to vary as reserves become less or more plentiful. These are not the marks of a collusive arrangement.

Of the respondents in our study who did not indicate a specific compensating balance requirement, nearly all stated that the past, present, and expected balances of the borrower were considered in setting the rate. Many asserted that, although their banks did not impose balance requirements, borrowers with low balances paid rates which reflected their relative balances. Under this practice, compensating balances do not add surplus profits; instead they bring the effective rate closer to the equilibrium rate.

Compensating balance requirements are viewed by some as an effort on the part of banks to attract the balances that their borrowers hold in other banks.[2] A bank could offer a loan rate below the equilibrium rate, provided that the borrower transferred his balance to the lending bank. These interest-free deposits bring reserves which can be used to support earning assets. This hypothesis is supported by the fact that balance requirements tend to be imposed on borrowers likely to have large voluntary balances. This evidence will be examined below.

The analysis of compensating balance requirements as competitive devices implies that these requirements serve a function similar to the payment of interest on demand deposits of borrowers. A portion of the bank's customers (those borrowing) receives some of the bank's services at a cost below the market rate. If this amounts to an indirect payment of interest on demand deposits, we should expect that, when the payment of interest on these deposits was permissible, compensating balance requirements would not have been used so extensively. Direct interest payments would have been simpler and could have affected the bank's non-borrowing customers as well as its borrowers.

In contemporary literature there seems to be some confusion about compensating balance requirements before 1934; some writers even dispute their exist-

[1] Donald Hodgman, "The Deposit Relationship and Commercial Bank Investment Behavior," *Review of Economics and Statistics*, XLIII, August 1961, pp. 257-258; and *Commercial Bank Loan and Investment Policy*, Urbana: University of Illinois Press, 1963, pp. 106-110.

[2] Jack M. Guttentag and Richard G. Davis, "Are Compensating Balance Requirements Irrational?" *Journal of Finance*, March 1962, pp. 121-126; and "Balance Requirements and Deposit Competition," *Journal of Political Economy*, December 1963, pp. 581-585.

ence.[3] Yet, an examination of pre-1934 banking literature indicates that compensating balance requirements did exist even when banks paid interest on demand deposits.[4] The earlier proportionate balance requirements limited a borrower to a multiple of his previous balances, while contemporary compensating balance requirements limit the borrower's credit to a multiple of the balance that he will maintain on deposit in the future. The proportionate balance arrangement is the more restrictive of the two, and it does not seem to have been characterized by lower interest rates for the depositor-borrower. This suggests that the compensating balance requirements which existed before 1934 had a different purpose from the present ones. They may actually have been a device to increase the earnings of banks on their loans.

When interest was being paid on demand deposits during the 1920's, loan interest rates were fairly high on the average, approaching six percent,[5] and balance requirements may have been used to raise effective interest rates above the legal maximum. This would provide a rational explanation of the refusal of banks to lend to non-customers, as long as the equilibrium interest rate was above the legal maximum.

Although the benefits derived from having a large bank balance may diminish the cost to a firm of maintaining a compensating balance, the existence of "link-financing" implies that balance requirements are burdensome for at least some borrowing businesses. Under "link-financing," the borrower arranges for a third party to deposit funds to fulfill a compensating balance rule, so that the firm may have the full use of its borrowed funds. This device would not be employed if compensating balance requirements covered only the ordinary working cash of a business. Since the compensating balance requirement seems a hardship for at least some borrowers, one might ask why it remains.

It has been demonstrated that the position of both the borrower and the bank can be improved by eliminating the compensating balance requirement and increasing the rate.[6] This is possible because the cost to the bank of holding reserves to satisfy the reserve requirement against the compensating balance is eliminated. In several interviews I asked bankers whether they would consent to this kind of adjustment; all replied negatively. The unwillingness to employ such adjustments may be the result of failure to take account of borrowers' needs for working balances. Although the compensating balance requirement may be directed at borrowers with large balance needs, the fact that some borrowers find the requirement beyond their desired level of deposits need not be interpreted to mean that they have no balance needs. Further, the bank has more to gain than the interest earnings. It has the use of the funds of the borrower's balances during the period after the loan, and it may draw reserves to it on a permanent basis.

[3] See, for instance, George Garvey, *Deposit Velocity and its Significance*, Federal Reserve Bank of New York, November 1959.

[4] See, for example: Robert G. Rodkey, *The Banking Process*, New York: The Macmillan Company, 1928, pp. 180-181; Henry Thornton, *Substances of Two Speeches of Henry Thornton, Esq., on the Bullion Report*, 1811, p. 20, cited in Jacob Viner, *Studies in the Theory of International Trade*, 1937, p. 152; and Howard Whipple, "The Average Balance Theory: Is It Justified?" *American Bankers Association Journal*, May 1931.

[5] Hodgman, *Commercial Bank Loan and Investment Policy*, *op. cit.*, p. 128.

[6] Douglas Hellweg, "A Note on Compensating Balance Requirements," *The Journal of Finance*, March 1961, pp. 80-84. For an alternative demonstration, see also Thomas Mayer and Ira O. Scott, Jr., "Compensating Balances: A Suggested Interpretation," *The National Banking Review*, 1, December 1963, pp. 157-166.

Consider the following alternative situation where the borrower is granted a loan under a line commitment. This is a realistic assumption, since compensating balance requirements are more frequently found in line arrangements than in ordinary loans. The regular loan alternative may be generated by equating the time length of the loan with the length of the line commitment. Let B be the amount of money needed by the borrower, c = the percentage compensating balance requirement, i = the rate of interest, r = the bank's reserve ratio, t = the length of time of the loan, and let the length of the line commitment be equal to unity. In order to obtain the use of B, the borrower must borrow $\frac{B}{1\text{-}c}$ and keep $\frac{Bc}{1\text{-}c}$ on deposit for the entire length of the line. The total cost of the loan to the borrower will then be $\frac{B}{1\text{-}c}$ it + $\frac{Bc}{1\text{-}c}$ i(1-t). The first term is the interest cost of the loan, and the second term represents the cost of maintaining the compensating balance for the remainder of the time period, assuming that the opportunity cost is i. This assumes that the borrower's voluntary working balance is zero. That is an extreme assumption, since most businesses presumably need some operating cash in the bank. If the borrower would ordinarily need a balance to operate his business, at least part of his compensating balance can serve this other function, and his net costs of borrowing will thus be reduced.

The voluntary balance, V, reduces the cost of maintaining the required balance for both the loan term and the remainder of the line. This cost reduction holds only for voluntary balances less than the required one, however, for the borrower receives no explicit compensation for funds held in addition to the required balance. Equating the borrowing costs with the alternative of borrowing in the open market gives:

$$Bi_c t + \left(\frac{Bc}{1\text{-}c} - V\right) i_c t + \left(\frac{Bc}{1\text{-}c} - V\right) i_o (1\text{-}t) = Bi_o t, \frac{Bc}{1\text{-}c} > V$$

where i_o is the market rate and i_c is the maximum loan rate the borrower will pay. Solving for i_c we get:

$$i_c = \left(1 + \frac{V - \frac{Bc}{1\text{-}c}}{\left(\frac{B}{1\text{-}c} - V\right)t}\right) i_o.$$

Since $V < \frac{Bc}{1\text{-}c}$, i_c increases as t increases, and as V approaches $\frac{Bc}{1\text{-}c}$. Where the voluntary balance equals or exceeds the compensating balance (where $V \geq \frac{Bc}{1\text{-}c}$) the borrower's cost is only $Bi_c t$ and the borrower would be no worse off if i_c were equal to i_o.

Turning now to the effect of the balance requirement on the bank's earnings, first assume that the bank has $\frac{B}{1\text{-}c}$ in excess reserves available for holding earning assets. Consider two arrangements the bank may choose to invest in earning assets. First, it could lend this amount in the market at the prevailing rate, i_o, yielding earning of $\frac{B}{1\text{-}c}$ i_o if held for a time period of unit length. An alternative might be to lend $\frac{B}{1\text{-}c}$ for a time t, with compensating balance requirement, c, extending for the entire time period from zero to one. The bank's earning, using i_b

to indicate the interest rate charged on these loans, consist of the following: (1) the interest earned on the amount loaned, for the time t: $\frac{B}{1-c} i_b t$; (2) the interest on earning assets held with the funds on deposit, less required reserves, r: $(1-r)\frac{Bc}{1-c} i_o$;[7] (3) the earnings from lending the excess reserves $\frac{B}{1-c}$ from repayment (t) until the end of the time period: $\frac{B}{1-c}(1-t)i_o$. The bank's total earnings on this use of its resources are thus $\frac{B}{1-c} i_b t + (1-r)\frac{Bc}{1-c} i_o + \frac{B}{1-c}(1-t)i_o$. If we equate these earnings with those from regular lending at the market rate, $\frac{B}{1-c} i_o$, and solve for i_b, we get $i_b = i_o - \left[\frac{(1-r)\frac{Bc}{1-c}}{\frac{Bt}{1-c}}\right] i_o$.

To determine the conditions under which the minimum rate the bank is willing to accept is less than the maximum rate the borrower is willing to pay, we can form the following inequality with their formulas:

$$i_o \left(1 + \frac{V - \frac{Bc}{1-c}}{\left(\frac{B}{1-c} - V\right)t}\right) > i_o \left(1 - \frac{(1-r)\frac{Bc}{1-c}}{\frac{Bt}{1-c}}\right)$$

And solving for V, we get:

$$V > \frac{r}{1-c+rc}\frac{Bc}{1-c}.$$

Thus, for the compensating balance arrangement to be workable the borrower's voluntary balance must equal or exceed a fraction of his desired loan, that fraction being determined by the reserve ratio and the required balance ratio. Using the values $c = 0.20$ and $r = 0.16$ for these ratios, we can get the following multiple necessary for workability:

$$V > .192\frac{Bc}{1-c} = .048B.$$

II. *An Empirical Study*

Before I present my own study on compensating balance requirements, we may look briefly at two earlier studies.

F. P. Gallott, in a study prepared for the Robert Morris Associates, sought information on compensating balances from the one hundred largest banks in the country.[8] Of those who responded, 71 percent indicated that they required such balances in granting a credit line, and 55 percent required them in granting a specific loan. Seventy percent of the responding banks replied negatively and 30 percent affirmatively to the question: "Do you differentiate between national and local borrowers?" Where such discrimination occurred, it generally took the form of a more lenient attitude toward local than national borrowers. Sixty-two percent replied "yes," and 38 percent "no," to the question whether their balance requirements varied for different

[7] The borrower's voluntary balance might exceed $\frac{Bc}{1-c}$, but in that event, as has already been indicated, the borrower will be willing to pay any interest rate that is less than or equal to i_o, which means that he will be willing to pay a higher rate than the minimum the bank will accept, i_b.

[8] F. P. Gallot, "Why Compensating Balances," *Bulletin of the Robert Morris Associates*, August 1958.

lines of business. The question whether balance requirements varied with the "general availability of funds" brought an affirmative response from 51 percent of the responding banks and a negative response from 46 percent.

In its 1955 business loan survey, the Federal Reserve presented data on balance requirements for *all* member banks.[9] That study indicated that 23 percent of the member banks required compensating balances. Most of the larger banks had such requirements, while most of the smaller banks did not. The following is a summary of the results of that study:

Deposits in millions of dollars	Percentage in class having balance requirements
Under 20	5
20-50	32
50-100	54
100-500	83
Over 500	93

In carrying out my own study I sent a questionnaire in July 1963, to the one hundred largest commercial banks in the country. Fifty-five banks replied, in whole or in part, to that questionnaire.

My first question concerned the bank's percentage compensating balance requirement, classified according to the industry category of the borrower. Many of the respondents did not describe their policies separately for each industry, but presented instead a general statement of policy. On the basis of 48 such statements of policy the following results were obtained:

Percentage Balance Requirement	Number of banks
20% and over	7
15% to 20%	9
10% to 15%	15
Less than 10%	0
10% when not borrowing and 20% when borrowing	6
Required of finance companies only	7
No requirements	4

These balance requirements were generally applied in loans to prime borrowers, usually under line arrangements. However, there were some variations for a few industries. In particular, the balance requirements applied to finance companies were usually set at 10 percent of the line when not in debt, at 20 percent of the line when in debt, or at 10 percent of the line plus 10 percent of borrowings. Many banks which followed this policy for finance companies had a different set of requirements for borrowers in all other industries. Nearly all of the banks which did not specify balance requirements indicated that they considered the size of the balance when setting the rate of interest on a loan.

The second question dealt with the degree to which banks varied their balance requirements according to the size of the borrower, or according to the frequency and extent of his need for bank credit. Of the 40 answers to the first part of this question, 17 indicated that their requirements varied with the size of the borrower, while the remaining 23 stated that theirs did not. In explaining these policies, many banks stated that they were more lenient with small or local borrowers than with larger ones, although the former were often charged higher rates. The respondents also stated that larger borrowers tended to be "educated" about compensating balances, and fulfilled requirements with fewer objections than did smaller borrowers. To the part of this question regarding variation for frequency and extent of need for bank credit, 16 of the 40 responses were "yes," and 24, "no."

In response to a question on the reasons for establishing compensating balance requirements, some banks listed several reasons. The primary reasons cited were:

[9] Caroline H. Cagle, "Credit Lines and Minimum Balance Requirements," *Federal Reserve Bulletin*, June 1956, p. 576.

To obtain lendable funds	29%
To increase the rate of return	19%
To insure a depositary relationship	16%
To increase deposits	12%
To manipulate the interest rate	7%
To compensate bank for extending line	6%
To insure the customer of a good working balance	6%
To ration lendable funds	4%

It appears from these responses that banks are less concerned with short-run gains than with the long-term benefits of continuing customer relationships. This view is supported by several answers to the questionnaire which indicated that banks seek working balances rather than dormant balances, because working balances lead to long-term relationships.

Several respondents indicated that they would not accept rate compensation in place of balance compensation. Along with this, many bankers stated that they felt an obligation to serve the borrowing needs of their customers and required balances to do so. All this points to the conclusion that banks are more interested in attracting new customers and servicing all customer borrowing needs than they are in maximizing immediate returns.

The fourth question, "Do you have evidence that your balance requirements are particularly burdensome for the borrowers in any specific classification?", was posed to determine whether bankers thought these requirements caused financial hardships to their borrowers. Of the 42 replies to this question, 27 indicated "no evidence," nine indicated such evidence, and six thought their requirements were burdensome only for finance companies.

Question five, "Are there any industries in which you find borrowers often arranging 'link financing' by another party?", was designed to discover which borrowers had difficulty maintaining compensating balances. Of 44 replies to this question, 20 gave an unqualified "no." Thirteen said that finance companies used this form of financing, three mentioned leasing companies, two cited real estate firms, two found this practice to exist with firms doing international business, and four gave an unexpounded "yes."

The final question asked for a general statement about compensating balance requirements and their relationship to competition: "How would you characterize the effect of compensating balance requirements on competition in the banking system as a whole?" Of the 41 respondents, 14 felt that balance requirements have little or no effect on competition since all banks have them as a general policy. Seventeen of the banks felt that balance requirements can be employed as a competitive tool by varying the requirements. Ten of the respondents suggested that competition affects balance requirements, rather than the reverse; these bankers felt that when competition is keen banks are less demanding about establishing and enforcing their balance requirements.[10]

In addition to the questionnaire to the banks, I also sent a short questionnaire to the 90 largest corporations in the country and to 10 large finance companies. The purpose was to gather concrete information about firms' working balances and

[10] A recent study of compliance with balance requirements showed relatively little non-adherence to the requirements. A large majority of the banks surveyed in this study indicated that their requirements were left unfulfilled either "only occasionally" (1-5% of the cases) or "fairly frequently" (5-20% of the cases). A substantial majority of the banks stated that if a borrower's balance fell below the requirement only moderate steps were taken: ignoring the action, asking for an explanation, or agreeing to the action. Very few took more drastic steps, such as allowing the firm to draw down its balance only in an emergency. Thomas Mayer and Ira O. Scott, Jr., *op. cit.*

borrowing needs, in order to compare this information with the views expressed by the bankers.

The first two questions called for the firms' working balances at banks (exclusive of purely compensating balances), and their aggregate credit lines. A number of the respondents claimed no borrowing at all, and in some cases where credit lines were not given the current debt was used as an index. The breakdown of the percentages—bank balances of credit lines—is as follows:

Bank balance as a percent of credit line	Percentage of respondents
.00 – .10	12%
.10 – .20	24%
.20 – .30	24%
.30 – .40	12%
.40 – .50	7%
.50 – .70	14%
.70 – 1.00	2%
1.00 and over	5%

The number of banks of account for each of the hundred largest corporations, requested in the third question, ranged from 12 to about 2,300. An analysis of the 46 replies to this question yielded the following results:

Number of banks of account	Number of firms
1-50	6
50-100	5
100-200	10
200-300	6
300-500	12
500-1,000	3
1,000 and over	4

It might be added that the firm using only 12 banks was the only one of the six firms with fewer than 50 banks of account to use fewer than 25 banks of account.

The final question, "To what extent do you spread your borrowings among your banks of accounts?", in conjunction with the preceding question, gave some good indexes of the number of banks of account which served these corporations' borrowing needs. Many firms indicated no borrowing at all, but 34 gave answers suitable for classification. Ten of the respondents spread their borrowings over all their banks of account, while four used only their "major" banks, presumably about 10 or less. The complete results on this question are as follows:

Percentage of firm's banks of account	Number of respondents
"Major" banks only	4
0 to 10%	8
10 to 20%	2
20 to 30%	4
30 to 50%	4
50 to 80%	1
80 to 100%	1
All banks	10

These findings indicate that borrowing patterns are fairly diverse, although the use of either a very few banks or of all banks of account characterized nearly 70 percent of all cases reported.

Summarizing the characteristics of compensating balance requirements from the empirical observations presented, we see that these requirements most often are imposed by large banks upon firms which are large, national, and likely to carry balances in a number of banks. These firms need working balances which are generally sizeable in relation to their credit lines. The compensating balance requirement appears to be directed toward attracting these funds on a permanent basis. The reasons given for the requirements by the bankers themselves indicate that the principal purpose is to establish a continuing depositary relationship.

The fact that the requirements are directed at firms likely to have sizeable working balances supports the hypothesis that an arrangement can be found which will be more beneficial to both the bank and the borrower than any of their market alternatives. This is true because the bank has use for the funds (during and beyond the loan) which the borrower must hold for other purposes. If we assume that the equilibrium rate is above the prime rate, the compensating balance arrangement results in an imputed interest payment to the borrower during the loan, and, hopefully, in a permanent working balance in the bank after the loan. If a borrower needs a working balance, the bank can compete for this balance by offering a loan rate below the maximum the borrower will pay and above the minimum the bank will otherwise accept, provided that the borrower maintains a sufficiently large balance on deposit with it.

We have suggested that the voluntary balance necessary to assure mutual profitability amounts to less than one quarter of the required balance and less than five per cent of borrowings, under existing conditions. The empirical studies described above show that 88 percent of the respondents have voluntary balances amounting to ten percent or more of credit lines, or amounting to twice the required level. This evidence suggests convincingly that it is quite common for borrowers and banks to find themselves in circumstances in which a compensating balance arrangement will improve the position of both parties. The use of compensating balances under these conditions can scarcely be considered irrational.

►ALLEN F. JUNG

Commercial Bank Charges in New York and Ontario

This study compares the charges at commercial banks in Niagara Falls, New York, and Niagara Falls, Ontario.[1] Although these two cities are located next to each other, the international boundary impedes a free flow of banking services. The banks in New York are thus not in direct competition with the banks in Ontario.

We found that Ontario banks made loans similar to and at rates below those quoted by New York banks. Automobile loans at automobile dealers, and loans at personal finance companies and appliance dealers were available on similar terms and at similar rates in both cities. Ontario banks offered lower service charges on personal checking accounts.

I. *Methodology and Sample*

The information for this study was obtained by personal shopping. The author posed as an individual interested in obtaining a loan for a new car he intended to purchase, and a personal unsecured loan to finance a planned vacation.[2]

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[1] Little data exist concerning commercial bank charges. Some data have been published concerning bank rates in the United States on automobile and personal unsecured loans, but no such information is available for Canadian banks. See Irving Schweiger and John S. McGee, "Chicago Banking," *Journal of Business*, July 1961.

[2] A standardized shopping procedure was developed and employed. For a description of standardizing shopping procedures, see Allen F. Jung, "Techniques for Collecting Price Data," *Public Opinion Quarterly*, Summer 1964.

At commercial banks, the would-be borrower stated that he was purchasing a new automobile which would require a cash outlay of $2,500. He expressed an interest in financing $1,500 for the maximum maturity acceptable to the bank. The maximum maturity offered at any bank was 36 months.

In obtaining data concerning personal unsecured loans, the borrower sought a loan of $500, which he offered to repay in twelve monthly instalments. In response to questions concerning personal credit information, the applicant replied that he had lived in the city where the lending firm was located for two years, was a salesman with annual earnings in excess of $10,000, and had been employed by the same firm for 14 years. He stated that, with the exception of the mortgage on his home, he had no outstanding credit contracts.

In the course of the negotiations, the applicant also sought information concerning the inclusion of credit-life insurance and inquired about the bank's checking account charges.

The sample included all commercial banks in Niagara Falls, United States (3), and Niagara Falls, Canada (6). Branch banking exists in both cities, and a second branch was contacted to verify the information obtained at the first. The Niagara Falls, New York, banks were branches of Buffalo, New York, banks. The main offices in Buffalo were approached for similar loans. Banks in Niagara Falls, Ontario, were part of nationwide banks in Canada. The Toronto, Ontario, main branch or main office of each bank was also shopped.

For comparison purposes, rates were obtained in both cities for new automobiles at automobile dealers, unsecured loans at personal finance companies, and appliance loans at appliance dealers. The sample included all Corvair, Falcon, and Valiant dealers, five in the United States and five in Canada, and all personal finance (small loan) companies, seven in the United States and six in Canada. The requests were identical to those made at commercial banks. In addition, ten dealers in each city were contacted for instalment credit of $200 on the purchase of an automatic washing machine.

II. *Findings*

A. Finance Charges for Automobile Loans

All commercial banks in Niagara Falls, New York, and Niagara Falls, Ontario, were willing to extend credit on new automobiles. One Ontario bank restricted maximum maturity to 24 months and another to 30 months,[3] but the remaining Ontario banks and all New York banks stated maximum maturity as 36 months. All New York banks and three Ontario banks included credit-life insurance at no additional cost.[4]

There was considerable variation in automobile finance charges at Ontario banks and very little at New York banks (see Table on p. 000). The rates (all expressed in simple annual interest[5]) at Ontario

[3] In determining the charges at these banks, we added 1.0 percent simple interest in the case of the bank limiting maturity to 30 months and 1.9 percent in the case of the bank limiting maturity to 24 months. United States banks quoting multiple rates on automobile loans have followed this pattern.

[4] In these cases $18 was subtracted from the finance charges before interest rates were computed. This rate of $.40 per $100 per year for credit-life insurance is available to the borrower on an optional basis at some commercial banks.

[5] All interest rates have been expressed in terms of simple annual interest. The following formula was used:

$$R = \frac{r(2n)}{(n+1)}.$$ R = actual annual simple

banks averaged 8.8 percent, and ranged from 6.0 percent to 11.1 percent. The New York banks quoted an average rate of 11.7 percent, with a range from 11.6 percent to 11.8 percent. The Ontario bank quoting the highest rate, 11.1 percent, was one-half point below the New York bank quoting the lowest rate, 11.6 percent. The Ontario banks that appeared to be more aggressive in seeking car loans quoted higher rates than other Ontario banks.

Automobile dealers in Niagara Falls, New York, quoted an average rate of 13.7 percent compared with 11.7 percent quoted by commercial banks. In Niagara Falls, Ontario, the average rate at the dealers was 13.5 percent compared with 8.8 percent at the banks. There was little variation among the dealers' rates in either city; the lowest rate, 13.4 percent, was found in Ontario, and this was only .4 point below the highest rate, 13.8 percent.

B. Finance Charges for Personal Unsecured Loans

All commercial banks in both cities were willing to lend $500 on an unsecured basis for 12 months. The banks that included credit-life insurance "free" on automobile loans also included it on personal loans.[6] The New York commercial banks quoted higher rates than the Ontario banks. The average rate at the New York banks was 14.1 percent with a range from 13.6 percent to 14.4 percent, while Ontario banks averaged 9.8 percent with a range from 6.0 percent to 13.4 percent.

Personal finance companies in both cities quoted rates at the maxima permitted by statute on a $500 loan for 12 months. The slight variation in rates in New York was occasioned by the mandatory inclusion of credit-life insurance by some firms. Ontario personal finance companies offered lower average rates than those offered by New York firms (23.5 percent vs. 25.2 percent).

Although appliance loans are not unsecured, the amount of the loan often exceeds the value of the used appliance. Rates on appliance loans, moreover, are generally much higher than rates on car loans. All appliance dealers canvassed in our survey offered credit terms. All dealers in New York quoted terms of 18.4 percent. Dealers in Ontario quoted rates that varied from 11.1 percent to 22.2 percent; the average was 16.7 percent. Anyone who desired to secure a personal loan at a commercial bank to purchase an appliance would pay an average rate lower than the average rate quoted by appliance dealers in either city.

C. Checking Account Charges

Banks in New York offered two types of checking accounts (special and regular). All Ontario banks offered similar checking services, although they mentioned the terms "personal" and "current" to describe these accounts. In addition, Ontario banks permitted checks to be drawn against savings accounts.

Ontario banks offered lower charges to the consumer on personal checking accounts and higher charges on current accounts than those offered by New York banks. All banks in Niagara Falls, New York, made similar charges for checking

rate of interest; r = nominal rate of interest per year; n = number of equal monthly payments. This formula was suggested by the Board of Governors of the Federal Reserve System and is also used by many firms.

[6] Similar adjustments were made for credit-life insurance on personal unsecured loans. *Op. cit.*

Table

Finance Charges (Expressed as Simple Annual Interest) Quoted by Commercial Banks, Automobile Dealers, Personal Finance Companies, and Appliance Dealers in Niagara Falls, New York, and Niagara Falls, Ontario.

	Automobile Loans					
	Commercial Banks			Automobile Dealers		
	Mean	Median	Range	Mean	Median	Range
	(percent)			(percent)		
New York	11.7	11.8	11.6-11.8	13.7	13.6	13.6-13.8
Ontario	8.8	9.6	6.0-11.1	13.5	13.4	13.4-13.8

	Personal Unsecured Loans					
	Commercial Banks			Personal Finance Companies		
	Mean	Median	Range	Mean	Median	Range
	(percent)			(percent)		
New York	14.1	14.2	13.6-14.4	25.2	25.1	25.1-25.5
Ontario	9.8	10.3	6.0-13.4	23.5	23.5	23.5-23.5

	Appliance Loans		
	Appliance Dealers		
	Mean	Median	Range
	(percent)		
New York	18.4	18.4	18.4-18.4
Ontario	16.7	16.7	11.2-22.2

account services. On special checking accounts, the charge of 15 cents per check covered all costs. Regular checking accounts incurred a monthly maintenance charge of 75 cents plus 6 cents per entry (deposits and checks drawn); the minimum monthly balance earned a credit against this charge at the rate of 20 cents per $100. All banks in Niagara Falls, Ontario, made charges of 10 cents per check issued on special (personal) checking accounts. There was no monthly maintenance charge and no charge for deposits on this type of account. On regular (current) checking accounts the charge was 10 cents per entry; against this, one free entry per month was permitted for each $50 minimum balance. Checks drawn on savings accounts cost 15 cents each; one free check was permitted each three months for each $100 minimum balance.

D. Charges at other Branches

Additional branches of each bank were contacted in both Niagara Falls, New York, and Niagara Falls, Ontario. No differences were found among branch offices of the same bank. A similar check at the main office or larger affiliate in Buffalo, New York (approximately 25 miles distant), and Toronto, Ontario (approximately 75 miles distant), revealed no differences in rates at a particular bank.

III. *Conclusion*

The banks in Niagara Falls, Ontario, offered significantly lower rates than Nigara Falls, New York, banks on the three services studied: automobile loans, personal unsecured loans, and personal checking accounts. Some have contended that because of the limited number of banks in Canada due to nationwide branching, competition is lessened and the consumer pays more for banking services. This hypothesis does not appear to hold true on the Niagara frontier, and a spot check revealed that charges for similar services at Buffalo banks were above the charges for these services at Toronto banks.

The structure of loan rates is the same in Ontario as it is in New York. Commercial banks offer lower cost automobile loans to the consumer than do automobile dealers. Personal unsecured loan rates at banks are below the rates for instalment credit on consumer durables such as appliances. Personal finance companies on both sides of the border are higher-cost sources of credit.

► WILSON E. SCHMIDT

Default of International Public Debts

There is increasing concern over the growing service on debts owed by less-developed countries to the industrialized nations. Service on public and publicly-guaranteed debt of these countries rose by an estimated 250 percent between 1956 and 1963.[1]

With the growing overseas activity of American banks and their provision of credit to less-developed countries, for example through the Export-Import Bank and the International Bank for Reconstruction and Development, the problem of default is no doubt of substantial interest to the American financial community.[2] This interest should be strengthened by the fact that widespread default could have major implications for the American balance of payments, perhaps ending outflows of new loans or requiring additional aid to stave-off default. The analysis developed here is also directly applicable to problems of default faced by domestic lenders.

There is no international institution with the power to collect the debts of governments. Thus, governments may be dissuaded from defaulting on their international debts only by (1) a sense of morality, (2) a loss of prestige that default may entail, (3) a fear that the creditor nations may withhold aid which they

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[1] *Towards a New Trade Policy for Development*. Report by the Secretary-General of the United Nations Conference on Trade and Development, New York: United Nations, 1964, p. 85.

[2] George S. Moore, "International Growth: Challenge to U. S. Banks," *The National Banking Review*, 1, September 1963, pp. 1-14.

might otherwise provide, (4) a renegotiation of the terms of existing debts to ease the burden of service, or (5) offers of new aid. The purpose of this article is to analyze and compare the last three of these means of preventing default. To isolate them, we assume that the first two factors do not exist.

The conventional measures of debt-servicing capacity concern the resources available to make good on debt obligations. They are the ratio of debt service to current account earnings, to government revenues, to national savings, to compressible imports, and the ratio of imports to reserves. If creditors employ such measures to determine their response to threats of default, it would seem natural that they should select policies which enhance the debtor's ability to pay. Viewed in these terms, balance-of-payments loans to restore reserves would seem appropriate. Easing the terms of existing debts or their cancellation would also make sense, as would additional aid to expand export or import-competing production. But the withholding of future aid would be excluded because it would not improve the conventional measures of ability to pay; in fact, it would reduce the resources available to the debtor.

Much of the discussion of debt-bearing capacity of countries assumes, implicitly or explicitly, that there is a distinction between the ability and the willingness of a country to pay its debt service.[3] In principle, countries always have the ability to pay debt service because there is always some combination of monetary, fiscal, and exchange-rate policies which will permit a country to achieve a current account surplus sufficient to meet its service obligations. Indeed, a country could export its entire gross national product if it wanted to do so. The real issue is not ability but willingness to pay, that is, willingness to adopt the right combination of policies.[4] What must be investigated, then, are the factors which influence the decisions of debtors whether or not to default, particularly the balance of gains and losses for the debtor through default.

I. *Withholding Future Aid*

A creditor may respond to a prospective default with a threat to withhold aid that the debtor might otherwise receive. The staff of the International Bank for Reconstruction and Development seems to think that this reaction will be automatic.[5] Will such a threat succeed in preventing default?

A rational debtor will not default if the present value of the future aid it will lose in the event of default exceeds the present value of the future service payments it must make on existing debts. The present value of a grant when it is made is, of course, equal to the grant itself. The present value of a loan to the debtor at the time it is made is equal to the face value of the loan less the present value of the future interest and amortization payments discounted at the yield on capital in the debtor country.

The International Bank for Reconstruction and Development estimates that the external public debt and publicly-guaranteed debt of 74 less-developed countries was $18 billion at the end of 1962. In 1963, the estimated service on this sum was $2.2 billion in amortization and $.7 billion in interest.[6] To reach a rough esti-

[3] D. Avramovic, *et al.*, *Economic Growth and External Debt*, Baltimore: Johns Hopkins Press, 1964, p. 9.

[4] It is little wonder that the conventional measures of debt-service capacity have been found inadequate by key users such as the IBRD and the Development Assistance Committee. *Ibid.*, p. 94; and *Development Assistant Efforts and Policies, 1964 Review*, Report by Willard Thorp, Chairman, Development Assistance Committee, Paris: Organization for Economic Cooperation and Development, September 1964, p. 48.

[5] Avramovic, *op. cit.*, pp. 8, 10.

[6] *Ibid.*, p. 112.

mate of the present value to the less-developed countries of the future service payments on the debts existing at the end of 1962, we discounted the future service payments at 8 percent and obtained a figure of $9 billion.

In 1963, bilateral grants and grant-like contributions from donor nations were about $4 billion. The present value to the recipients of these grants was, of course, $4 billion. In addition, there was $2.1 billion of official bilateral loans with maturities in excess of one year[7] These loans had an estimated present value of approximately $800 million when the service is discounted at 8%.[8] Bilateral official grants and loans made in 1963, therefore, had a present value of $4.8 billion to the recipients. In addition, the less-developed countries received over $600 million in assistance from multilateral organizations.[9] The present value of this sum is approximately $100 million if we assume, to be conservative, that all of it consisted of IBRD loans at the relatively hard terms of 5¾% and 20 years.

Therefore, barring a major change in aid levels, if the donors would have cut off all aid in response to a default, the less-developed countries as a whole would have lost, within two years, more than they would have gained. A chain reaction leading to world-wide default thus seems unlikely. This conclusion is strengthened if we assume that private investment would collapse in the event of a general default (net private investment and guaranteed export credits exceeded $2 billion in 1963).[10] It is further strengthened if we assume that exchange control mechanisms would not be able to contain the local capital that would flow out of the less-developed countries in the event of defaults on government debt.

Of course, the foregoing calculation is not conclusive. There is the problem of selecting the correct discount rate. The data on external debt and debt-service are probably under-reported. And, because the foreign aid dollar is not fully convertible and generally may be used only in the donor country, the real value of an additional dollar of foreign aid is less than the real value of a dollar paid in debt service. Tied procurement therefore increases the likelihood of default. Unfortunately, there is no information available on the differences in real value of tied and untied dollars.

Moreover, what holds true for the aggregate of less-developed countries may not necessarily be conclusive for individual debtor countries. Individual debtor countries may receive little aid relative to their service payments. Or they may correctly or incorrectly anticipate a reduction in future aid because of shifts in the foreign or domestic policies of the donors. In some cases, the debtor may contrive to default only on debts owed to selected creditors, hoping that other creditors will not withhold aid. And some debtors may, perhaps correctly, believe themselves to be so important in the foreign policy of certain donors that future aid will be forthcoming even if they default. In any of these circumstances, default may well be attractive.

II. *Renegotiation and New Aid*

Another response to a threat of default would be a proposal of renegotiation by the creditor, or an offer of new aid in exchange for a promise not to default. There is no difference in principle between renegotiating debt and giving new aid. A reduction in the interest rate on existing debts, or a partial cancellation of those debts, is the same as providing a

[7] *Development Assistance Efforts and Policies, 1964 Review, op. cit.*, Table 5.

[8] Average terms were derived from Tables 6 and 7 of *ibid.*

[9] *Ibid.*, p. 27.

[10] *Ibid.*, Table 5.

grant each year equal to the amount of debt service foregone. The extension of a given amount of debt service over a longer period of time is equivalent to a loan of the amount of the postponed service at zero rate of interest.

Though there is no difference in principle between the two types of assistance, there is a significant difference in the amount. Renegotiation leaves some debt burden; default does not. An offer to renegotiate cannot make payment of the debt service more attractive than default unless some non-economic factors such as morality and prestige enter the decision. In contrast, there is always some volume of new aid which will induce the debtor to renounce his intention to default. Hence, for the moment, we shall consider only new aid as a means of preventing default.

It will pay the creditor to offer new aid to induce the debtor to meet his existing service obligations if the present value to the creditor of the service exceeds the present cost to the creditor of the new aid that he must provide to prevent default, using the yield on capital in the creditor country as the rate of discount. The debtor will agree to meet his obligations if the present value to the debtor of the new aid is greater than the present value to him of the existing service payments, using the yield on capital in the debtor country as the rate of discount.

Suppose that the yield on capital in the debtor nation (8%) is higher than in the creditor nation (4%), and that the debtor is obliged to pay service of $1 per annum for the next 10 years on past debts. The present value of this service to the debtor is $6.71, so that the creditor must offer more, for example a lump-sum grant of $6.72, to prevent default. The present value to the creditor of the service is $8.11, and the creditor would be willing to offer a lump-sum grant up to this amount in order to prevent default. Because the debtor requires a lump-sum grant slightly in excess of $6.71, while the creditor would willingly offer a lump-sum grant up to $8.11, default can be prevented through offers of new aid. If he has full confidence in the renewed pledge of the debtor to pay, the creditor gains by offering a grant up to $8.11. With less than full confidence, he need only reduce his best offer in the bargaining, the saving being a risk premium. Hence, uncertainty does not invalidate the technique.

If we reverse the yields on capital so that the yield is higher in the creditor nation (8%) than in the debtor nation (4%), an offer of new aid cannot benefit both parties and, thus, must fail to prevent default.[11] The present value to the debtor of the service obligation assumed above would be $8.11, while its present value to the creditor would be $6.71. Consequently, there is no lump-sum grant which the creditor could *profitably* offer that would also persuade the debtor to renounce default. An annual grant equal to, less than, or more than the service payments would also fail to satisfy both parties. Finally, loans will also fail. Any new loan which gives the debtor a present value sufficient to induce the debtor to forego default imposes a present cost on the creditor far in excess of the present cost of default.[12] If the creditors have promised future loans to the debtor against its development plan, the credi-

[11] Increasingly, it is recognized that the yield on capital in some less-developed countries may be below that of the advanced countries. See sources cited in my "Economics of Charity," *Journal of Political Economy*, August 1964 and Avramovic, *op. cit.*, p. 55.

[12] This is illustrated in the following table, and a general proof appears in "Economics of Charity," *op .cit. Each of the four loans in the table provides $8.12 of present value to the debtor,* which is enough to induce the debtor to forego default. The first two loans cover the possible range of interest rates at which the debtor could benefit from borrowing under the

tors may prefer to accept default and withdraw the promised loans because default may be considerably less costly to the creditors than loans and yet provide almost as much present value to the debtor.

III. *The Types and Terms of Aid*

We have seen that renegotiation of the terms of existing debts is insufficient to prevent default under our assumption that the debtor feels no remorse or loss of prestige in defaulting. The creditor faces alternatives of offering new aid only, or a combination of new aid and renegotiated terms. Our analysis shows that new aid in the form of loans with positive interest rates is a cheaper means of preventing default than renegotiation.[13]

The reason for this is straightforward. Grants always cost the creditor something. Loans at interest rates below the yield on capital in the creditor nation also cost the creditor something. But loans with higher interest rates do not. As long as the yield on capital in the debtor nation is higher than in the creditor nation, it is always possible to offer a loan with terms that benefit both parties. The interest rate ran be set between the yields on capital, so that both parties gain per dollar of loan, and the total benefits to the debtor can be controlled by the size of the loan.

The United Nations Conference on Trade and Development adopted, without dissent, a resolution calling for "appropriate" periods of grace before service payments commence in agreements which reschedule debt service. Should grace periods be offered?

Insertion of a grace period in a loan contract causes the creditor to lend back to the debtor the service it would have paid in the absence of a grace period. If two loans of equal size and the same maturity are to have equivalent present values to the debtor, the interest rate on the one with a grace period must be somewhat higher than the one without the grace period. The creditor must lend the service that otherwise would have been paid at a rate of interest equal to the yield on capital in the debtor country. Only at that rate of interest on the service which otherwise would have been paid will the present values of the two loans, one with and the other without a grace period, be equal. Finally, if the yield on capital in the debtor nation is above that in the creditor nation, the creditor must gain by employing the grace period, because the interest income

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assumption of a 10-year maturity. The second two loans cover a wide range of maturities.

Present Costs to Creditor of Alternative Loans

Loans	*Present Cost @ 8%*
Loan of $25.03 for 10 years @ 0%	$ 13.44
Loan of $1001 for 10 years @ 3.9%	275.39
Loan of $844.48 for 1 year @ 3%	39.10
Loan of $37.80 for 50 years @ 3%	23.12

[13] This is illustrated in the following table, where it is assumed that the yield on capital is higher in the debtor nation (8%) than in the credior nation (4%), and that the debtor has service payments of $1 per annum to make over the next 10 years. The present value to the debtor of these payments is $6.71. *The four alternative aid offers have a present value to the debtor of $6.72,* which is just enough to induce the debtor to forego default.

Present Cost to Creditor of Alternative Aid Offers

Aid Offer	*Present Cost*
Annual grant of slightly more than $1 for 10 years	slightly more than $8.11
Lump-sum grant of $6.72	6.72
Loan of $12.52 at 0% for 10 years	4.06
Loan of $1001 at 7.9% for 10 years	−31.66

We see that a loan with the highest possible interest rate costs the creditor less than a loan with zero interest, and that the latter costs the creditor less than either of the two grants. (Earlier we saw that renegotiation is either the same as a grant or the same as a loan with zero interest.)

received on the loan resulting from the grace period must exceed the cost of capital to the creditor.[14]

IV. *Some Possible Qualifications*

There has been no mention so far of the terms of trade. This may seem strange, inasmuch as changes in the terms of trade are a central part of the traditional analysis of the transfer burden. But, in our analysis, we need not be concerned with the terms of trade as long as the relationship is constant between each dollar transferred and the resulting change in real income through changes in the terms of trade. Suppose that an offer of new aid would just suffice to prevent default, leaving aside the terms-of-trade effects of the new aid and of default. If the terms of trade would improve with default, they would also improve with new aid. The one offsets the other. Therefore, the terms of trade do not affect our conclusions.[15]

We have taken the propensity to default as given. This is clearly wrong. If the creditor adopts a policy of offering new aid whenever a debtor threatens to default, debtors are likely to increase their threats of default in order to gain more assistance. If creditors wish to adopt a general policy to prevent default, they must choose between threats to withhold aid and offers of new aid because the two policies are mutually exclusive. The fact that new aid tends to stimulate defaults might seem to swing the argument in favor of reliance solely on threats to withhold aid. But this is not conclusive. The withholding of aid is a better policy only if the present cost of the additional aid, made necessary by a shift in the propensity to default, exceeds the present value of the service that will be lost because some debtors will default in spite of a credible threat to withhold future aid. The rational policy depends upon the circumstances. There is no substitute for a careful, tough-minded analysis of reality.

[14] The following table illustrates this conclusion. Each loan is repaid in equal annual installments which cover interest and amortization. Final settlement on each loan is reached after 50 years. The yield on capital is assumed to be 8% in the debtor nation and 6% in the creditor nation. The interest rates shown apply only to the loans made without grace periods. The interest rates on the other loans are adjusted so that each loan contract provides the same present value of benefits to the debtor as the loan without a grace period.

Present Benefit to Creditor With and Without Grace Periods

Loan	*No Grace*	*5 Years Grace*	*49 Years Grace*
$100 @ 6%	0	$ 8.77	$ 97.62
$100 @ 7%	$14.21	$24.24	$125.73
$100 @ 4%	−26.64	$20.20	$ 45.01

We see that grace periods benefit the creditor. This is true if the creditor, on the loans without a grace period, would have neither gained nor lost (@ 6%), would have gained (@ 7%), and would have lost (@ 4%). The gain to the creditor is without cost to the debtor because the present value of benefits to the debtor is held constant.

[15] For a general proof, see my "Economics of Charity," *op. cit.*

The Benefits and Costs of Being the World Banker: A Comment

►ROBERT Z. ALIBER

In the December 1964 issue of this *Review*, Professor Herbert G. Grubel concluded that the costs to the United States of being the World Banker have substantially exceeded the benefits.[1] His argument was that the U.S. economy has operated at less than full employment since 1958, and that the World Banker role has constrained the United States from taking measures to stimulate domestic income. He estimated that the loss in income attributable to the World Banker role exceeds the value of its benefits.

The key issue is whether the United States might have been in a better position to take measures to stimulate domestic income if it had not been the World Banker. The cumulative U.S. payments deficit of $16 billion between 1958 and 1962 led to U.S. gold losses of $6 billion; the more expansive monetary policy favored by Professor Grubel would have resulted in a larger cumulative deficit and even larger gold losses. More than $5 billion of the 1958-1962 deficit was financed by the acquisition of liquid dollar assets by foreign official institutions; this is what being the World Banker is all about. If foreign official institutions in the countries with the payments surpluses preferred to acquire much more gold, the United States would have found it impossible to finance such a large payments deficit. The pressure on the United States to reduce its deficit would have been much stronger than it was. Grubel accepts this point; indeed he complains that the World Banker role weakened the discipline of the balance of payments.[2]

Professor Grubel asserts that the World Banker role has "severely limited the choice of tools that the U.S. can use to adjust her balance of payments, leaving only rather inefficient alternatives." The only measure that Grubel mentions as an efficient alternative way to remedy the U.S. payments deficit is the devaluation

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[1] Herbert G. Grubel, "The Benefits and Costs of Being the World Banker," *The National Banking Review*, 2, December 1964, pp. 189-212. Professor Grubel's article includes a long essay on the benefits and costs of being the World Banker, and a short essay on the impact of various plans for international monetary reform on the U.S. Role as World Banker. This comment is directed solely to the first essay.

[2] Grubel asserts that "the world's willingness to accept U.S. dollars has allowed the development of a balance of payments disequilibrium which was both larger and longer lasting than it would have been otherwise. The direct consequences of these developments are large divergences of prices from their equilibrium values . . ." *Ibid.*, p. 200. This statement is too simplistic. Before 1958, there was little concern that the U.S. price level was too high relative to the price levels in other industrial countries. Since 1958, the U.S. authorities have given a great deal of attention to avoiding further increases in the U.S. price level, and they have been reasonably successful.

of the dollar relative to the currencies of the other industrial countries.[3]

It is one thing for Professor Grubel to prefer that the dollar *should* have been devalued; it is quite another for him to assert that the dollar *would* have been devalued if the United States had not been a World Banker. And even if the dollar were devalued, it is unclear that the U.S. payments position would be so benefited that reliance on some "inefficient alternatives" to improve the U.S. payments position would prove unnecessary. The success of a U.S. devaluation depends on the extent to which the countries with the large payments surpluses fail to devalue their currencies proportional to that of the dollar.

The questions of whether the dollar would have been devalued if the United States were not the World Banker, and whether a U.S. devaluation would be fully countered by other countries, are difficult; answers can only be speculative. Nevertheless, a number of factors can be brought to bear on these questions. Because Grubel's conclusion stands or falls on whether or not the only effective constraint on successful devaluation of the dollar is the World Banker role, it would seem appropriate that he speak to these factors. By chance or intent, Professor Grubel has side-stepped them. The answers to these questions may be intuitively obvious to Grubel, but they cannot be accepted *ex cathedra*.

Professor Grubel has not, as he claims, demonstrated that there is a "strong presumption that the social cost by far exceeds the social benefits of being the World Banker." All Professor Grubel has done is identify the issues involved in this comparison; next time, perhaps, he will come closer to them.[4]

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[3] "In the past, devaluation of the currency has been the one method whereby countries have chosen to redress their balance of payments quickly and efficiently after they found themselves in disequilibrium positions like the United States." *Ibid.*, p. 201. This statement is misleading in that it suggests an analogy between the disequilibrium position of the United States and that of other countries. Each time a major country has devalued, it has done so because of a substantial deficit on its current account. Throughout the last five years, the United States has had a substantial surplus on current account.

[4] Other elements in Professor Grubel's evaluation of the costs and benefits are also oversimplified. He fails to distinguish the constraints on choice of U.S. policies that reflect the importance of the United States in the international economy, from the additional constraints that result from being the World Banker. His evaluation of the benefits of being the World Banker is deficient because it does not distinguish between the willingness of foreign official institutions to hold liquid dollar assets, and their willingness to acquire more liquid dollar assets.

Does it Necessarily Cost Anything to be the "World Banker"?

► HENRY N. GOLDSTEIN

In his recent stimulating contribution to this Journal,[1] Professor Grubel maintains that "being the World Banker has severely limited the choice of tools that the U.S. can use to adjust her balance of payments, leaving only rather inefficient alternatives."[2] Grubel's entire cost/benefit analysis hinges on this assumption. As he notes, however, the existence of such a constraint on U.S. policy has been pointed out by no less than Secretary Dillon. According to Secretary Dillon:

> Our dominant role in world trade and finance have meant that we could not either *prudently* or *effectively* use many of the simpler and most direct types of action by which other countries have sometimes dealt with their payments deficits. Currency devaluation, import restriction, exchange control . . . are all out of the question. [my italics][3]

As Grubel notes, the existence of this same constraint has also been stressed by such authoritative academic observers as William Salant, George Halm, Theodore Geiger, and Harry Johnson.[4]

Despite the official and academic credentials of those who have expressed this view, I do not believe that it withstands critical examination. Let me put my doubts in the form of a question. Has it been an "institutional fact"—namely, the dollar's role as a reserve currency—that has *compelled* the U.S. to follow "inefficient policies" in coping with its payments deficit in recent years? Or, should the responsibility for such policies be attributed more properly to timidity and lack of a "proper set" of social priorities on the part of those individuals who happened to have occupied positions of authority? To rephrase the question: has the failure of the U.S. economy to operate at a higher level of output and employment during the past five years reflected the "inevitable outcome" of the payments arrangements that have existed, *or* should that failure be attributed to the inappropriate policies of particular men working under those arrangements?

To assess the possible validity of this second hypothesis we have to suppose that a different attitude had dominated economic policy decisions in this country. For the sake of argument, then, imagine that during the past six years different

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[1] Herbert G. Grubel, "The Benefits and Costs of Being the World Banker," *The National Banking Review*, 2, December 1964, pp. 189-212.

[2] *Ibid.*, p. 200.

[3] See Douglas C. Dillion, Statement before the Joint Economic Committee, "The United States Balance of Payments," *Hearings*, Part I, Current Problems and Policies, Washington, D. C.: 1963, cited by Grubel, *op. cit.*, pp. 201-202.

[4] Appropriate references to statements by these observers are given by Grubel, *op. cit.*, p. 202.

men had occupied the strategic "economic decision-making" positions in the Administration, the Congress, and the Federal Reserve System. Assume that these men had been less willing than the actual incumbents to tolerate excessive domestic unemployment in order to "keep the dollar as good as gold." And suppose, also, that they had been less apprehensive than the actual incumbents of the speculative after-effects of *equilibrating* adjustments in existing par values. With such men "at the controls," this country's macro-economic policies would presumably have differed from the policies actually followed in the following respects:

(1) we would have had an earlier and a larger tax cut;
(2) we would have had a larger volume of government spending;
(3) we would have had an easier monetary policy.

Presumably, these policies would have produced a higher level of employment, output and economic growth. But what would have been the probable balance-of-payments results?

In some respects, a higher level of domestic output and employment would have strengthened the U.S. external position. Relative to the rest of the world, the United States would have been a more attractive place for direct investments than, in fact, it has proved to be. Also, insofar as U.S. export and import-competing industries practice cost-plus pricing *and* have lower average unit costs at higher output levels, there would have been some tendency for these industries to be internationally more competitive than they in fact were.

On the whole, however, opposing influences would almost certainly have dominated. Under conditions of stronger general demand, costs and prices of U.S. goods would probably have risen more than they have in fact risen, and the willingness and ability of U.S. producers to provide prompt delivery and "fringe services" would have declined. Moreover, aside from reducing the competitiveness of U.S. goods in both price and nonprice terms, a higher level of U.S. national income would—through the "marginal propensity to import"—have stimulated a greater volume of imports. With the same exchange rates, therefore, the "basic" U.S. payments deficit would probably have been considerably larger than it actually has been. Correspondingly, the rest of the world would have experienced a larger overall payments surplus. In particular, the countries that have built up their gold and dollar holdings the most during the past six years—France and Germany—would have built them up even more.

All this, of course, assumes that continued confidence in existing parities could somehow have been maintained. But this possibility seems far-fetched. Before very long something would have had to give.

As Milton Friedman has pointed out, a country can cope with an underlying balance-of-payments deficit in four ways:

(1) it can reduce the external price of its currency;
(2) it can impose controls of one kind or another (and so "live with" a more-or-less permanent disequilibrium in the foreign exchange market);
(3) it can finance its deficit out of owned or borrowed reserves (so long as its stock of internationally acceptable assets or international credit holds out);
(4) it can deflate its economy.

But, as Friedman also emphasizes, these are the only four ways; there are no others.[5]

[5] See Milton Friedman, "The Case for Flexible Exchange Rates," reprinted in *Foreign Trade and Finance* (ed. by Allen and Allen), pp. 316-317.

The U.S. policy makers who have actually been running our affairs have chosen to use a combination of methods (2), (3), and (4).[6] The dollar price of gold has been sacrosanct; and so have the par values of the currencies of those foreign countries whose surpluses have corresponded, in the main, to our deficit (the only exception was the 5 per cent revaluation of the DM and the guilder in March 1961). With a different set of U.S. policy makers at the helm, however, is it inevitable that this degree of rigidity in the exchange rates of the major industrial countries would have been maintained? Admittedly, it is likely that a different set of policy makers would also have been very reluctant to increase the dollar price of gold (for why provide an unnecessary windfall gain to the gold speculators, to the Soviet Union, and to the Republic of South Africa?). Nevertheless, it would surely have been possible to exert a great deal more pressure on Germany and France to revalue their currencies than was in fact ever attempted. Had this pressure been successfully exerted, there would presumably have been a quick restoration of reasonable balance in the flow of international payments between the U.S. and the Continental countries.

Had our policy makers striven to persuade the Europeans to revalue their currencies they could have utilized the following potent arguments:

(1) They could have pointed out to both the German and French governments, and to the governing authorities of the IMF as well, that a "basic disequilibrium" clearly existed. Had we pursued a full-employment policy with vigor, our deficits on current-account and long-term capital account plus net unilateral transfers would probably have exceeded $6 billion a year.[7]

(2) They could have pointed out that a change in the dollar price of gold (*unaccompanied* by a corresponding devaluation by the major surplus countries) would be the least desirable way of achieving the needed realignment of par values; for this mode of depreciating the dollar relative to foreign currencies would have played into the hands of gold speculators and also given windfalls to the Soviet Union and to the Union of South Africa.

(3) They could have pointed out that an appropriate realignment of par values would eliminate "imported inflationary pressures" on the Continent. (These pressures would have been even greater than those actually experienced if the U.S. had pursued more expansionary fiscal and monetary policies).

Admittedly, the surplus countries might have resisted our tactfully stated suggestions that they revalue their currencies. In that event, we may imagine the U.S. Secretary of the Treasury addressing his opposite numbers in the OECD in the following terms:

> The maintenance of full employment and a high rate of domestic economic growth is as important an economic objective in my country as it is in yours. At the present, however, given the nature of our overseas commitments, our price and cost structure, our level of "full-employment" national income, and our distaste for protectionism, we are compelled to admit that the dollar is significantly overvalued relative to a number of your currencies. The exact extent of this overvaluation is uncertain; but our experts' best

[6] Grubel argues (*op. cit.*, pp. 202-203) that the imposition of the Interest Equalization Tax and the partial tying of U. S. military purchases overseas may be viewed as a disguised devaluation of the dollar for certain types of transactions.

[7] In recent years, it has become fashionable in fiscal-policy discussions to use the term "full employment deficit" to refer to the estimated Federal budget deficit (or surplus!) at "Full Employment." My colleague, Reed Hansen, has suggested to me that a similar term might aid clear thinking in discussing balance-of-payments questions. A portmanteau term that has occurred to me is "the gimick-free, full-employment payments deficit."

guesses range from 10 to 15 per cent as against the following currencies—the DM .....%; the French franc .....%; the Austrian schilling .....%, ...

In order to remove this disequilibrium, we urge your respective governments to revalue their currencies by the percentages just noted (with the revaluations averaging 12.23 per cent on an "unweighted basis"). Should your governments be unwilling to take this action, we shall feel compelled, in order to meet our domestic and international responsibilities, to either increase the dollar price of gold by this same percentage, or—and this would probably be our second choice—to cease buying and selling gold to foreign official institutions altogether.

We appreciate the seriousness of either type of action. But we see no way out except to deflate our economy or impose various types of open or disguised exchange controls, alternatives which we find even more distasteful and which are also contrary to the spirit and letter of both the Bretton Woods Agreement and the GATT.

Had U.S. policy-makers pursued this sort of line, is it altogether fanciful to believe that the Europeans would have cooperated and adjusted their parities?

If this approach had failed, the U.S. would presumably have had to go ahead with its threat and increase the dollar price of gold by an amount ranging from 10 to 15 per cent of its present value. If the Europeans had not then "retaliated" and devalued their currencies by offsetting margins, the dollar's devaluation would have represented an effective resolution of the U.S. policy-dilemma, even though it would have been considerably less optimal than an appropriate revaluation of the strong European currencies.

Moreover, the possibility of "European retaliation" in these circumstances seems remote. For whereas the U.S. action would clearly have been justified under the rules laid down in the Bretton Woods Agreement, any European counter-action could only have been interpreted—under those rules—as an attempt to "beggar-their-neighbor." If the U.S. had, in fact, increased the dollar price of gold following the refusal of the Europeans to revalue their currencies by appropriate margins, its determination not to allow a balance-of-payments deficit to throttle its domestic economic growth or force it to adopt protectionist measures would have been evident, and counter-revaluations of European currencies would have appeared clearly unproductive and irresponsible. For similar reasons, it seems unlikely that the Europeans would have initiated any "run" on the U.S. gold stock following a devaluation of the dollar. Such an action might well have forced the U.S. to go "off gold" altogether—presumably the last thing any "responsible" European financial leader would want to see.

* * *

We have argued that a reserve-currency country has almost as much leverage in obtaining an equilibrating adjustment in exchange rates as a non-reserve currency country, *providing* that its policy makers have an appropriate set of social priorities and a suitable lack of respect for the "untouchability of existing par values." If our argument has merit, the case for abandoning the dollar's use as a reserve currency is weaker than Professor Grubel makes out.

Our argument does not imply, of course, that there is no merit in international monetary reform. Quite possibly, as Professor Grubel implies, a system of flexible exchange rates or—going to the opposite extreme—the creation of an XIMF would both prove superior to present institutional arrangements, even if these arrangements were managed in a better fashion than they have been. The main purpose of this note is simply to question the widely accepted assumption that a reserve-currency country is significantly more "constrained" than other countries in its efforts to achieve both internal and external economic objectives.[8]

[8] Professor Tobin has recently argued that—on grounds of "international morality"—the Eu-

ropeans should either revalue their currencies or freely extend compensatory finance to enable the U. S. to "manage" its payments deficit at full employment. (See James Tobin, "Europe and the Dollar," *Review of Economics and Statistics*, May 1964, pp. 123-126). As Tobin sadly observes, however, the Europeans have been quite unwilling to pursue such policies *voluntarily*—even though these policies would greatly benefit the United States and would involve no economic cost to themselves (rather, considerable economic benefit through the reduction of inflationary pressures). Moreover, in Tobin's view, the hands of U. S. policymakers have been tied. As he puts it, "Once a banker has solemnly assured the world and his depositors that he will never fail, he is at the mercy of those depositors capable of making him fail" (*op. cit.*, p. 124).

Since the beginning of history, however, countries—great and small—have broken their "solemn promises" when circumstances have dictated. Consider, too, that in honoring our pledge to keep the dollar price of gold unchanged we find ourselves breaking our commitments under the Bretton Woods Agreement and the GATT to pursue policies that promote domestic full employment and free world trade (assuming that we are in fact placed in this "moral dilemma" by the unwillingness of the Europeans, *even under pressure*, to revalue their currencies). But, surely, it is a bit strained to "blame" the Europeans for not volunteering actions which—however appropriate from an internationally "moral" and economic point of view—would reduce their bargaining power and prestige, relative to the United States, around a host of international conference tables. Does not the blame belong, rather, to U. S. policymakers who have failed to recognize their country's economic self-interest and to exercise the bargaining power at their disposal in negotiating with the Europeans?

The Benefits and Costs of Being the World Banker: Reply

►HERBERT G. GRUBEL

When it comes to making judgments about the rationality of American policy makers, a professor's position high in the ivory tower puts him at a distinct disadvantage vis-a-vis such astute and experienced observers of the local Washington scene as Dr. Aliber and Professor Goldstein. Dr. Aliber's position that I have failed to demonstrate a "strong presumption that the social cost by far exceeds the social benefits of being the World Banker" is therefore a welcome commentary by a man who sees things from a different vantage point. Professor Goldstein's remarks complement well my own original argument as well as Dr. Aliber's comments.

Dr. Aliber's first point is that if the United States had not been the World Banker, her balance of payments difficulties would have required corrective action much sooner. I have tried to shed doubt on the value of not feeling the discipline of the market, continuing on a disequilibrium path for prolonged periods, and then not being able to deal with a large disequilibrium in the most efficient way. Aliber's second point is that if the United States had been forced to take corrective action at an earlier date, she would not have chosen to devalue, but instead would have imposed much the same inefficient policies which I have argued are due to the World Banker position. Unfortunately, Dr. Aliber does not elaborate on this point except by hinting at possible competitive devaluations by surplus countries (Professor Goldstein, incidentally, demonstrates very well how the United States could handle such a threat by foreigners). There are undoubtedly powerful domestic interests which oppose any change in the value of the dollar at any time. However, I wish that Dr. Aliber had provided us with some concrete reasons why, in the face of serious balance of payments deficits, embarassing gold losses, and continued high levels of unemployment, these forces would have dominated over those favoring an efficient solution. After all, the United States devalued in the Thirties, and other major countries have readjusted the value of their currencies in the last decade. Since the second World War, the United States has been the champion of free world trade and payments, a position incompatible with domestic adjustment policies restricting the freedom of trade. As I have argued in my paper, it is exactly this feeling of responsibility for the functioning of the free world monetary system, with the dollar as one of its main pillars, that serves as a powerful constraint on the use of the devaluation policy and creates the current need for other undesirable measures to correct the balance of payments deficit.

I agree fully with Professor Goldstein's

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interpretation that these inefficient policies are due to the "timidity and lack of a 'proper set' of social priorities on the part of those individuals who happened to have occupied positions of authority." But I do not agree that the timidity they have shown is unrelated to the reserve currency status of the dollar. To the contrary, the circumstances which made these men timid are, to a large extent, those which I have analyzed as being a result of the World Banker position. As to the absence of a "proper" set of social priorities, I would like to suggest that the entire argument in my paper concerned the proposition that United States policy makers lack such a set of priorities when they insist on maintaining the role of the dollar as a reserve currency and do not push for a solution of the world liquidity problem through a fundamental reform of the system.

Speculation about what the course of human events might have been under different circumstances is a popular, but frustrating, undertaking. In such arguments, recourse must be had, eventually, to personal judgment.[1] The most important element in the formation of my judgment was the principle that human beings and their governments act so as to achieve maximum welfare at minimum cost. Individuals and societies do not always succeed in achieving this goal, but most often such failures are due to a lack of information about the cost and availability of alternatives. Academicians are paid by society, in part, to provide information about these alternatives. My paper was an effort in this direction.

If the United States had not been the World Banker, there may or may not have been a devaluation. But I am reasonably certain that if the United States had not been the World Banker, and there had been no devaluation, some academician would have felt compelled to write a paper with the title: "The Benefits and Costs of Maintaining an Overvalued Currency." In fact, with few modifications, my own paper might pass under that title.

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[1] For a judgment on the benefits and costs of being the World Banker agreeing with mine, see the commentary on my article published by *The Economist*, London, December 26, 1964, p. 1449.

The Impact of Bank Entry on Market Conditions in the Equipment Leasing Industry: Comment

►RICHARD S. BOWER

In his interesting article[1] Eugene F. Brigham concludes ". . . that at present leasing is substantially more profitable [for a bank] than term lending." He supports this conclusion with an example and explains it by noting that leasing companies have higher costs than banks and that market imperfections, principally those preventing banks from becoming lessors, have restricted the supply of funds to the leasing market.

This explanation of yield differentials might be satisfactory if borrowing was not an alternative to leasing. However, since firms may either lease or borrow, yield differentials can be corrected by the actions of users as well as suppliers of funds. Leases, then, can offer a yield advantage to fund-suppliers only if they also offer no cost disadvantage to fund-users.

Brigham's discussion of the demand for financial leases[2] suggests awareness that the conclusion on yield differentials requires justification of the lessee's decision. His example ignores this requirement. The lease-borrow alternative in the example involves a $1000 asset which has a five-year depreciable life and an expected value in five years of $50 (.5 probability of $100, .5 probability of 0). Both the lease and the alternative term loan call for year-end annual payments of $237.40 for five years. The lease does not confer the investment tax credit on the lessee, but does give the lessee the option of purchasing the asset for $100 at the end of the five years. The operating firm's cash outflow for the loan alternative is shown in Table 1. The outflows for loan and lease alternatives are compared in Table 2. The loan provides smaller and later outflows and so has a lower present cost at every possible discount rate.[3] A bank might offer Brigham's hypothetical lease as an alternative to a term loan, but it

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[1] Eugene F. Brigham, "The Impact of Bank Entry on Market Conditions in the Equipment Leasing Industry," *The National Banking Review*, 2, September 1964, pp. 11-26.

[2] Brigham, *op. cit.*, pp. 12-14.

[3] If the investment tax credit and the residual value are ignored or assumed to be zero, as in Brigham's Table 1 example, *op. cit.*, p. 22, the loan no longer provides a smaller outflow sum but does provide later outflows. The conclusion on present cost is the same.

Table 1

Cash Outflow of Firm Under Brigham's Hypothetical Term Loan Arrangement

Year	Payment (1)	Interest* (2)	Principal* Repaid (3) = (1) − (2)	Depreciation † (4)	(5) = .5 × [(2) + (4)] Tax Savings From Expenses‡	Investment Tax Credit and Residual Value§ (6)	(7) = (1) − (5) − (6) Cash Outflow
1	237.40	60.00	177.40	316.66	188.33	30	19.07
2	237.40	49.36	188.04	253.33	151.34		86.06
3	237.40	38.07	199.33	190.00	114.03		122.97
4	237.40	26.11	211.29	126.67	76.39		161.01
5	237.40	13.44	223.96	63.33	38.38	50	149.02
			1000.02				

* The interest charge is 6% on the outstanding balance of the loan; $60 is 6% of the $1000 loan balance at the beginning of year 1. The remainder of the year 1 payment, $237.40 minus $60 or $177.40, is repayment of principal. The principal at the beginning of year 2 is the year 1 principal minus the year 1 repayment.

† Computed by sum-of-years digits using $950 ($1000 cost less $50 estimated residual value) as the depreciable cost.

‡ Assumes 50% tax rate.

§ The investment tax credit is $30. $50 is the residual expected value and since it is also the depreciated value of the asset it is not taxable.

Table 2

Comparison of Cash Outflows for Lease and Loan Under Brigham's Hypothetical Arrangement

Year	Cash Outflow With Loan *	Cash Outflow with Lease †
1	19.07	118.70
2	86.06	118.70
3	122.97	118.70
4	161.01	118.70
5	149.02	118.70
	538.13	593.50

* From column (7) Table 1.

† This is the lease payment (equal to column (1) Table 1) less the associated tax saving (the tax rate times the lease payment). The $100 purchase option does not appear because if it is exercised the payment will be matched by the residual value of the asset.

seems unlikely that any firm would accept the offer.[4]

If the lease in this example has no market, and this is likely unless there is a particularly beneficial effect on the firm's debt limit,[5] then it will have to be made more appealing. This could involve smaller compensating balances, a lease term shorter than depreciable life, transfer of the investment tax credit, or some other adjustment. Any or all of these adjustments would reduce, and could eliminate, the yield advantage attached to leasing. Brigham, therefore, may be deceived by his own unreasonable example when he concludes that "leasing is substantially more profitable than term lending."

[4] Because of the clear superiority of the loan's cash flows, no sophisticated analysis of the lease-borrow decision is required. Any of the methods suggested for lease evaluation in the current literature (and those systems which the author has found applied in the petroleum industry) will cause rejection of the lease. See, for example, Richard F. Vancil, "Lease or Borrow—New Method of Analysis," *Harvard Business Review*, September-October 1961, pp. 122-136; William D. McEachron, "Leasing: A Discounted Cash Flow Approach," *The Controller*, May 1961, pp. 213-219; George Terborgh, *Lease-Purchase Alternatives*, Studies in the Analysis of Investment Projects, No. 5, Washington: Machinery and Allied Products Institute, 1961.

[5] Brigham's discussion of credit availability, *op. cit.*, p. 14, and his reference to the study by Richard F. Vancil and Robert N. Anthony, "The Financial Community Looks at Leasing," *Harvard Business Review*, November-December 1959, pp. 113-130, suggest that he considers more credit to be available to a firm that leases than to an identical firm that borrows. This may, in fact, be the case, though Brigham's report on banker's views, *op. cit.*, pp. 16-20, does not support it; but even if it is, there seems little likelihood that the differential effect on the debt limit could offset the outflow disadvantage of the example's lease.

The Impact of Bank Entry on Market Conditions in the Equipment Leasing Industry: Reply and Correction

►EUGENE F. BRIGHAM

Professor Bower believes that since rates in different markets can be equalized by shifts in demand as well as supply, my explanation for higher lease rates is unjustified, and my lease example is unrealistic. The first point arises from a slight misunderstanding and can be easily clarified. The second is more fundamental, and my investigation of it led me to reestablish contacts with the lessors and lessees who had supplied my original information. It now appears that my original rate information was correct, but that competition has increased markedly in the leasing industry since the entry of banks. As a result—and in conformity with my thesis—rates have been driven down to the point where those presented in the earlier article are no longer applicable. In addition, discussions with the bank lessors suggested that several points in my earlier analysis are not being borne out, and I shall take this opportunity to correct these faulty predictions.

I. Market Equilibrium

When Professor Bower states that ". . . since firms may either lease or borrow, yield differentials can be corrected by the users as well as suppliers of funds," he is theoretically correct. But the statement implicitly assumes perfect, or at least good, substitutability between leases and loans, and this is emphatically *not* correct. Leases offer certain advantages over loans, and so long as these advantages persist for a sufficient number of fund-users, yield differentials can exist.

II. *A New Demand Factor: The Investment Tax Credit*

In the earlier paper, I indicated four principal reasons for leasing. I suggested that these all represented "cultural lags" that were being overcome, and predicted that the demand for leasing would decline relative to that for term loans. It now appears that an important new reason to lease has arisen from the investment tax credit, and that instead of declining the demand for leasing may actually be increasing.

Recently, United Air Lines announced plans to lease $42 million of jet aircraft from a syndicate of six major banks. The implicit interest rate in the lease was well below the prime rate, but the banks retained the tax credit. Even disregarding the residual value, the banks' effective yield is substantially above what they could obtain on a loan of comparable

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risk; under some reasonable estimates of residual value the yield is quite high. UAL's effective cost, on the other hand, appears to be lower under the lease than it would have been under a loan. Why? Because UAL does not have a large enough tax liability to absorb the investment tax credit.[1]

Four types of firms appear unable to use the full tax credit, and thus are likely leasing prospects. First, many companies are expanding so rapidly that they are obtaining very large tax credits relative to their absolute size; yet, their ability to take accelerated depreciation on recently-acquired assets is holding down taxable income. UAL is an example of such a firm. A second type is represented by the railroads. They are faced with a huge modernization program, hence large investments and tax credits, but their profits are notoriously low. As unlikely as it may seem, a third source of demand for leases is coming from certain oil companies. The 27-percent depletion allowance has reduced the tax liabilities of some of these companies to the point where they cannot absorb the tax credit arising from their new investment. Finally, some large leases have been negotiated with subsidiaries of larger companies where, for a variety of reasons, the parent and subsidiary do not file consolidated tax returns. Suppose, for example, that three firms enter a joint venture to manufacture a product, and that a new corporation is set up which gets its capital by selling common stock to the parent corporations and by borrowing. When the new firm invests in assets, it receives a tax credit. But, even considering the provision that allows the credit to be carried forward for five years, the subsidiary is unlikely to be able to use the credit. An obvious answer is to lease rather than borrow, thus giving up the investment tax credit in exchange for more favorable lease terms.

The impact of these new demands for leases has hardly been felt, but many in the industry think it will utimately produce a surge of new financial leases. One bank, confident of this developing demand, made a study of its own ability to absorb the tax credit, concluded that the leasing volume may be too great, and began investigating ways to bring non-leasing banks into syndicates to help use the credit.

III. *Market Dynamics*

To make his second point, Professor Bower develops a schedule of cash flows for the lease and loan of my example. In that example, the present value of the lease outflow exceeds that of the loan. From this, Bower concludes that a fund-user would reject the lease as given, so the terms I used must be unrealistic.

Under his implicit assumption that the lease and loan are good substitutes, he is correct. However, since that assumption is not correct, the example is not obviously unrealistic. To test the example, a number of lessors in the Los Angeles and San Francisco areas were shown the original lease terms, then asked whether a company able to obtain a 5-year, 6-percent loan would be willing to accept such terms. The consensus was that the terms are too high in today's market, although they were approximately correct twelve months ago when the material was obtained.

What has happened is that competition in the leasing business has increased greatly during the past year, at least in California, and this has resulted in lower yields on leases. Previously, rates had

[1] The tax credit is limited to $25,000, plus 25-percent of the tax liability in excess of $25,000. For example, a firm with $25,050,000 taxable income and a 50-percent tax rate could take at most a credit of $3,150,000 [$3,150,000 = $25,000 + .25 (($25,050,000) (.5) − $25,000)]. A credit of this size would arise from new investments of less than $45 million.

been firm. Lessors were willing to quote rates for hypothetical situations, and the actual leases that were examined showed a great deal of consistency. Today, "negotiation" is the response to hypothetical questions, and "variability" best describes the leases actually being written. The market is unstable, but rates are clearly lower than in the recent past. Since demand has not slowed—if anything it is stronger—the best explanation for the more competitive market is the entry of banks.

IV. *Operating Costs*

Earlier, it was reported that the conferences reached the consensus that leasing could be standardized in much the same manner as term lending, and that operating costs for the two credits would be about the same once the leasing departments were "tooled-up". Now, after some operating experience, this conclusion seems questionable.

Leasing is considerably more complicated than lending. While the stated interest rate is the only determinant of the expected gross yield on a loan, when calculating the yield on a lease accelerated depreciation, residual values, and the tax credit must also be considered. When the possibility of using increasing or decreasing payment schedules is added, it is easy to see the bewildering variety of lease terms that could provide a lessor with a given expected yield. It is also easy to see that the calculation of these different lease proposals requires a leasing expert, and that a computer is essential.

Two conclusions follow. First, the relatively large fixed cost of setting up a leasing department probably results in substantial economies of scale in bank leasing. This being the case, it is unlikely that many banks other than the very large will become active in leasing.[2] Second, the complexity of leasing is likely to keep the average cost of making and servicing a lease somewhat above that on a term loan of the same size, risk, etc. This means, of course, that gross yields on leases will probably remain somewhat above those on loans even after the full impact of competition is felt.

V. *Conclusions*

New information indicates that my earlier analysis should be modified in three respects. First, under the stimulus of the investment credit, the demand for leases appears to have increased rather than diminished. Second, operating bankers are apparently finding that leasing is considerably more complicated than regular lending. This leads to a high degree of specialization, with the result that economies of scale in leasing now appears to be more important than was previously thought. In consequence, it is unlikely that smaller banks will become active in leasing, except perhaps through correspondent arrangements with larger banks or specialized leasing companies. Third, and also a result of the apparent complexity of leasing, it now seems that we were optimistic in thinking that the operating costs on leases would fall to the level of those on term loans. For the larger banks, lease operating costs may approach those of terms loans

[2] In the nearly two years since leasing has become permissible, we find that, in California, only the five largest banks are known to have actually entered the business. However, since these five banks have almost 80-percent of the total banking assets in the state, this is no indication that banks have failed to increase competition in the industry.

The economies-of-scale condition also suggests that banks may find it advantageous to cooperate with specialized leasing companies on a participating basis, and that correspondent arrangements between large and small banks may be extended to leasing.

as volume increases, but it is doubtful that they will actually fall to the level of loan costs. This will, of course, tend to keep the gross yield on leases somewhat above that on comparable term loans.

Professor Bower's major criticism is correct—the rates used in my hypothetical example are too high, given the state of competition in leasing *today*. But, fortunately, this is very much in keeping with the central theme of my analysis—that bank entry would take place, that it would increase competition, and that it would drive effective yields down.

Current Legal and Regulatory Developments

During the final quarter of the past year there were a number of significant changes in the laws and regulations affecting the operations of national banks.

I. *Lending Limit*

In a new ruling relating to the lending limit applicable to national banks,[1] it has been held that the obligations of a corporation and those of its major individual shareholder need not be combined in applying the bank's lending limit if the loans are granted on the basis of each borrower's own credit standing or independent ability to meet repayment arrangements satisfactory to the bank as a credit matter. However, if the bank makes the loans to both the corporation and its major shareholder in reliance on the corporation and its earnings as the source of repayment and credit basis for both loans, such an arrangement would, in substance, be a single extension of credit to the corporation and, in such circumstances, the loans must be combined in determining whether the bank has exceeded its lending limit to a single borrower. This ruling is similar to another ruling discussed in a previous issue of the *Review*[2] relating to the combining of loans to each of three brothers and their corporation where the bank made all of the loans in reliance on the corporation and its earnings—or assets—as the source of repayment.

In another ruling, the Comptroller held that loans secured by notes, warrants, or other instruments which are general obligations of a dependency of the United States are not subject to the limitations of 12 U.S.C. 84. It was therefore further

[1] The statutory limitation (of 12 U.S.C. 84) on the amount which a national bank may lend to any one borrower is 10 percent of the bank's capital and surplus. Although this limitation is subject to thirteen statutory exceptions, no exception is relevant in this instance.

[2] *The National Banking Review*, 2, December 1964, p. 264.

held that where a loan is secured by general obligations of the government of the Virgin Islands, which is a dependency of the United States, the lending limit of 12 U.S.C. 84 is not applicable.

II. *Loan Protection*

The Comptroller has held that a national bank may, in making construction, development and other loans to corporate borrowers, take as additional security and protection, debt instruments having convertible features or stock warrants attached thereto. In connection with this ruling, the Comptroller stated that whether a loan should be evidenced by a convertible note or by a note with assignable warrants is a matter for the exercise of the bank's prudent judgment. However, it was further stated that any stock in a corporate borrower acquired in connection with such a transaction should be written down and disposed of within a period of time not to exceed five years.

III. *Investment Securities*

The Comptroller has issued a ruling relating to the application of the ten percent investment limitation of paragraph Seventh of 12 U.S.C. 24 to bonds issued by the Dormitory Authority of the State of New York. The question raised was whether this limitation may be separately applied to the aggregate bonds of each college for which the Authority has issued bonds or, whether, instead, all bonds issued by the Authority for various colleges in New York must be combined in applying this limitation. Referring to an earlier ruling relating to the eligibility for investment by national banks in bonds issued by the Dormitory Authority of the State of New York for the State University of New York,[3] the Comptroller noted that the Authority is a public benefit corporation created to provide dormitories and related facilities at colleges in the State of New York, and that the bonds issued by the Authority to help finance the construction of domitories and related facilities of a particular college are, in each instance, payable solely from the revenue derived from the lease of such facilities by the Authority to the particular college. It was noted further that the Authority, although the issuer and nominal obligor of these bonds, is a conduit through which the individual colleges make payment of the bonds issued for their respective benefit and for which they are the sole source of repayment. Whether the bonds issued for a particular college are eligible for investment by national banks must be determined by the ability of the particular college "to perform all that it undertakes to perform" in connection with the bonds, including all debt service requirements, and by the marketability of such bonds as required by the Investment Securities Regulation.[4] The Comptroller concluded that in applying the ten percent investment limitation of paragraph Seventh of 12 U.S.C. 24 and the Investment Securities Regulation[5] to bonds issued by the Dormitory Authority of the State of New York, such limitation may be applied separately to bonds issued for a particular college when such bonds are repayable solely from the revenue derived from that particular college. It was further concluded that in such circumstances the college is the obligor within the meaning of the Regulation.[6]

A contrary result was reached in another ruling by the Comptroller.[7] In

[3] 12 C.F.R. 1.115.

[4] 12 C.F.R. 1.5.

[5] 12 C.F.R. 1.6.

[6] 12 C.F.R. 1.6(a). See 12 C.F.R. 1.159.

[7] 12 C.F.R. 1.163.

this ruling, it was noted that the government and control of state-owned colleges and universities in Kansas are vested in a board of regents which appoints for each school a chief administrative officer. The board of regents is authorized to issue revenue bonds to finance the construction of buildings at state-owned colleges and universities, and is obligated to fix, maintain, and collect such fees and charges for the use of such buildings as will produce revenues sufficient to pay the costs of operation, maintenance, and debt service, and to provide a reasonable reserve fund. It was further noted that the board of regents limits its liability in connection with a particular bond issue to the revenue generated by the building financed by that bond issue, that the colleges and universities are agents for the board of regents and have no obligation to pay the debt service on such bonds, and that in order to meet debt service requirements in connection with bonds issued by it for a facility of a particular school, only the board of regents covenants to maintain a schedule of fees and charges which will provide a fund sufficient to meet such debt service requirements. The Comptroller ruled that in applying the ten percent investment limitation to revenue bonds issued by the board of regents of the State of Kansas, such limitation must be applied to the aggregate of all bonds issued by the board of regents.[8] The Comptroller further held that, in such circumstances, the board of regents is the obligor within the meaning of the Investment Securities Regulation.[9]

In another ruling, the Comptroller held that certain bonds qualified as public securities[10] and were therefore eligible for purchase, dealing in, underwriting, and unlimited holding by national banks,[11] irrespective of the fact that the bonds were to be issued by the state[12] under legislation which provided that the bonds were not to be general obligations of the state but were to be payable from the proceeds of motor vehicle excise taxes. The Comptroller noted that the legislation also provided that the state undertook to maintain such taxes so as to provide sufficient funds to pay the bonds and interest thereon, and that the supreme court of the state has held with respect to bonds such as these that if the state undertakes or agrees to provide any part of a fund from any general tax, be it excise or ad valorem, the securities issued upon the credit of the fund are likewise issued upon the credit of the state and are, in truth, debts of the state.[13]

In yet another ruling, the Comptroller held that certificates of participation issued by the Federal National Mortgage Association (FNMA) in a fiduciary capacity are eligible for dealing in, underwriting, and unlimited holding by national banks.[14] This ruling was issued in light of a recent legislative enactment[15] which authorized the FNMA to act in a fiduciary and representative capacity and to

[8] Contained in paragraph Seventh of 12 U.S.C. 24 and Section 1.6 of the Investment Securities Regulation (12 C.F.R. 1.6).

[9] 12 C.F.R. 1.6.

[10] As defined in Section 1.3(c) of the Comptroller's Investment Securities Regulation (12 C.F.R. 1.3(c)).

[11] As authorized by paragraph Seventh of 12 U.S.C. 24.

[12] State of Washington.

[13] This ruling is identical to an earlier ruling of the Comptroller relating to bonds of the State of Washington. (12 C.F.R. 1.127).

[14] Pursuant to paragraph Seventh of 12 U.S.C. 24.

[15] P.L. 88-560 which amended section 302(c) of the Federal National Mortgage Association Charter Act (12 U.S.C. 1717(c)) and paragraph Seventh of 12 U.S.C. 24.

issue such participations or other instruments as might be appropriate for financing purposes, and which provided that the limitations and restrictions applicable to national banks with respect to dealing in, underwriting, and purchasing for their own account investment securities shall not apply to "obligations, participations, or other instruments of or issued by the Federal National Mortgage Association."

IV. *SBIC Investments*

The Comptroller has issued a ruling relating to the question whether the proceeds of capital notes may be included as part of the aggregate amount of unimpaired capital stock and unimpaired surplus funds for the purpose of computing the limit applicable to investment by a national bank in a small business investment company. The applicable Federal statute provides that shares of stock in small business investment companies shall be eligible for purchase by national banks, except that in no event shall any such bank hold shares in small business investment companies in an amount aggregating more than 2 percent of its capital and surplus.[16] It was previously ruled by the Comptroller that the proceeds of capital notes may be included as part of the aggregate amount of unimpaired capital stock and unimpaired surplus funds for the purpose of computing the limit of loans by a national bank to its individual borrowers.[17] It has now been ruled that the proceeds of capital notes, capital debentures, or other similar obligations issued by a national bank which are subordinate in right of payment to the prior payment in full of all deposit liabilities of the bank, may be included as part of its capital in determining its two percent limitation on the amount which it may invest in a small business investment company.[18] Similarly, in determining this two percent limitation, a national bank may also include all of its capital accounts derived from either paid-in capital funds or retained earnings, not subject to known charges, and which are considered interchangeable by resolution of the bank's board of directors.[19]

V. *Real Estate Loans*

The Comptroller has ruled that where a bank makes a loan in reliance on personal property, such as a mobile home, and the credit-worthiness of the borrower, the loan is not a real estate loan even though the bank perfects its security interest in such property in a manner that would protect the bank in the event that a court later concluded that such property was, in the circumstances of the case before it, real estate. Under the Comptroller's ruling, such loans would not be subject to the limitations of 12 U.S.C. 371[20] inasmuch as, in accordance with previous rulings, a loan is not a "real estate loan" within the meaning and subject to the requirements of the statute merely because it is secured by real estate, but only where the bank relies upon real estate as the primary security for the loan.

[16] 15 U.S.C. 682(b).

[17] See *The National Banking Review*, 1, March 1964, p. 425.

[18] The use of capital notes for other purposes was discussed in *The National Banking Review*, 1, June 1964, pp. 600-601.

[19] The use of such funds for the purpose of various other yardstick formulae appearing in certain statutes which affect national banks and their operation was discussed in *The National Banking Review*, 2, September 1964, pp. 93-94.

[20] More detailed discussions of what constitutes a real estate loan and when loans are not subject to the requirements of the real estate loan statute, 12 U.S.C. 371, appear in *The National Banking Review*, 1, September 1963, p. 135; 1, December 1963, p. 261; and 1, March 1964, p. 426.

In accordance with the provisions of the statute governing real estate loans,[21] it has been held by the Comptroller that loans in which the Small Business Administration agrees to participate, on an immediate or deferred basis, under the Small Business Act are not subject to the restrictions or limitations imposed by statute[22] upon loans secured by real estate. Accordingly, national banks participating in loans with the Small Business Administration may take second mortgages and liens on unimproved real estate in connection with such participations.

In another ruling, the Comptroller has held that where a national bank makes a mortgage loan for the purpose of its resale to a mortgage investor, and where the loan is tailored to meet the specifications of such investor, it is not a real estate loan within the meaning of, and therefore not subject to the requirements of applicable Federal law governing real estate loans.[23] The Comptroller has cautioned, however, that care must be exercised by the warehousing bank to assure that a financially reliable mortgage investor unconditionally commits itself to purchase the notes within a reasonable period of time.

VI. *Interest Charges*

A ruling was issued by the Comptroller's Office in response to an inquiry by a national bank seeking to offer 4½ percent interest on a one-year certificate of deposit. The applicable Federal regulation requires that the interest charged for a corporate loan made with a certificate of deposit as collateral must be in an amount at least two percent above the rate being paid on the certificate, and the maximum legal rate on loans in the state is six percent. The bank was reminded that under applicable Federal law,[24] national banks are subject to the same maximum limitations on interest rates as those imposed upon state banks, that under the reported court decisions of the state in which the bank is located[25] lenders are permitted to charge business corporations interest at whatever rate is agreed to by the parties, and that applicable Federal law[26] has been interpreted as extending to national banks within the state the same right of permitting lenders and business corporations to agree to any rate of interest. The Comptroller ruled that where the borrower wishing to pledge 4½ percent certificates of deposit as security for a loan is a corporation, there is no legal prohibition against a national bank's charging a rate of interest of 6½ percent or more.

VII. *Voting Trusts*

It has been held by the Comptroller that the creation of a voting trust of national bank stock is permissable where the holders of a sufficient number of shares are willing to participate. Since the rights of parties to a voting trust agreement, as between themselves, are largely a matter of the law of the state in which the bank is located, that law must be observed in the preparation of the voting trust agreement. However, the Comptroller has stated that, from a supervisory viewpoint, a voting trust of national bank stock must not in its inception or operation adversely affect the welfare of the bank. Accordingly, voting trust agreements and any extensions, modifications, or renewals thereof must be submitted to the Comptroller for prior approval.

[21] 12 U.S.C. 371.
[22] 12 U.S.C. 371.
[23] 12 U.S.C. 371.
[24] 12 U.S.C. 85.
[25] Pennsylvania.
[26] 12 U.S.C. 85.

VIII. *Trust Powers*

The Comptroller has held that a national bank having trust powers may[27] act as an agent for a third party in originating, warehousing, and servicing loans in a state where state banks, trust companies, or other corporations which come into competition with national banks are permitted to act in a similar capacity. This ruling is similar to an earlier ruling[28] of the Comptroller relating to the authority of a national bank having trust powers to act as a general insurance agent.

IX. *Postal Services*

It has been held by the Comptroller that a national bank may provide postal service for its customers and receive compensation therefor. It was also held that such services may include meter stamping of letters and packages as well as the sale of appropriate insurance. National banks may advertise, develop, and extend such postal services for the purpose of attracting customers to the bank. However, the Comptroller has cautioned that care must be exercised to insure that the operation of a postal substation on banking premises is in accordance with the rules and regulations of the United States Postal Department.

X. *Travel Services*

As has been indicated in earlier editions of the *Review*,[29] it has long been recognized that, incident to the powers vested in them under 12 U.S.C. 21 and 24, national banks may provide travel services for their customers and receive compensation therefor. It has recently been held that a national bank may, in the provision of a complete travel service, establish and maintain an air travel credit card service.

XI. *Loans Secured by Coins*

In a ruling effective on July 30, 1964, the Comptroller limited loans secured by coins of the United States to 70 percent of the face value of the coins. This limitation was designed to alleviate the scarcity of coins which was then beginning to affect the banks' ability to serve their customers. Inasmuch as United States gold coins do not circulate, and loans secured by such coins have no significant effect on the scarcity of circulating coins or on the ability of banks to serve their customers, the Comptroller has ruled that the limitation of July 30, 1964, is not applicable to loans secured by United States gold coins. For these same reasons, the Comptroller has also ruled that the limitation is not applicable to loans secured by silver dollars.

XII. *Ownership of Mortgage Service Corporations*

In reply to an inquiry as to whether a national bank may own all of the capital stock of a construction finance corporation, the only assets of which were mortgage servicing agreements held by it in conjunction with four corporate investors and the Federal National Mortgage Association, the Comptroller ruled that the servicing of mortgages is a proper bank function and, therefore, a national bank may carry on this function indirectly through a corporation whose stock it owns, rather than perform it directly. However, the Comptroller noted that if a national bank performs mortgage servicing by means of a subsidiary corpora-

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[27] Pursuant to authority contained in 12 U.S.C. 92(a).

[28] See *The National Banking Review*, 2, December 1964, p. 266, for a discussion of this subject.

[29] *The National Banking Review*, 1, September 1963, p. 137, and 2, September 1964, p. 98.

tion, that corporation may not perform any function which the bank could not have performed directly.

XIII. *Investment in Bank Premises*

A national bank is by statute[30] prohibited from investing in bank premises, or in the stock, bonds, debentures or other such obligations of any corporation holding the premises of the bank, an amount in excess of the capital stock of the bank, except to the extent that the Comptroller grants his prior approval. As was mentioned in an earlier issue of the *Review*[31] the Comptroller has ordinarily approved investments in bank premises aggregating up to 50 percent of the bank's capital stock, surplus and undivided profits, where a reasonable need for such investment can be shown. The Comptroller has recently held that, for the purposes of this administrative standard, surplus and undivided profits shall include all capital accounts (other than capital stock) derived from either paid-in capital funds or retained earnings, not subject to known charges, and which are considered interchangeable by resolution of the bank's board of directors. Some examples of capital accounts which are includable for premises investment purposes are: surplus (paid-in or earned); undivided profits (paid-in or earned-unearned income must be deducted); tax-paid portion of valuation reserves for loans (includes amounts in reserve for loan losses for which no Federal tax deduction has been or may be taken); valuation reserves for securities; and reserve for contingencies. Accounts which are subject to known specific charges are not includable for such investment purposes; some examples are: Internal Revenue formula bad-debt reserves to the extent taxable; reserves for dividends declared; and reserves for taxes, interest and expenses.

XIV. *Corporate Practices*

A. Proxy Statements

The Comptroller has issued an interpretation of an exception contained in the regulation[32] which requires disclosure of certain information relating to remuneration of management in the solicitation of proxies for the voting of national bank stock. The exception states that amounts set aside on behalf of principal officers in certain types of pension funds need not be disclosed. The Comptroller has stated that the intent of the regulation is that in the case of pension funds which provide for fixed benefits on retirement at a specified age or after a specified number of years of service, and which also provide that contributions of the bank shall be based on actuarial computations rather than on *ad hoc* determinations by the board of directors each year, the amounts set aside for principal officers need not be set forth in the proxy statement.

B. Proxy Contests

Several rulings have been issued relating to proxy contests. The first concerned the point in an election contest at which a proxy solicitation by the management of a national bank becomes subject to the provisions of the regulation[33] relating to contests in the election of directors. The ruling was that if, prior to the solicitation, the management has knowledge of an opposition solicitation,

[30] 12 U.S.C. 371d.

[31] *The National Banking Review*, 1, June 1964, p. 601.

[32] 12 C.F.R. 11. The exception is contained in Item 3(b) of Schedule A.

[33] 12 C.F.R. 11.5.

a Schedule C [34] should be filed on behalf of each management nominee within five business days after the management solicitation is made, or such longer period as the Comptroller may authorize. Subsequently, the Comptroller issued an amendment to that provision of the proxy rules, requiring that any non-management group which is required to furnish the Comptroller with copies of proxy material pursuant to the proxy solicitation regulation [35] must simultaneously furnish the president or senior vice-president of the bank with a copy of such proxy material. In a second ruling, the Comptroller held that he would not object to the disqualification by management of proxies obtained in violation of the provisions of Section 11.5.

C. Rescission of Proxies

The Comptroller has held that, where the same shareholder has signed multiple proxies on different dates, the decision as to which proxy, if any, should be honored is within the discretion of the judges of election at the meeting.

D. Seven-Hundred-Fifty-Shareholder Test

The test of whether or not a bank is covered by the Securities Acts Amendments of 1964 turns on the number of record holders of "equity securities." The Comptroller has ruled that for the purpose of determining the applicability of the disclosure regulations of his Office, the owners of convertible capital debentures will not be considered holders of equity securities until such time as a conversion actually takes place.

E. Stock Option Plans

On December 31, 1964, the Comptroller issued an amended regulation stating that he would consider applications for the approval of any employee stock option or stock purchase plan which met certain specified guidelines. These guidelines permit the approval of stock option plans which might not qualify for special tax treatment under Sections 421 and 422 of the Internal Revenue Act.

F. Beneficial Ownership

In response to questions concerning the definition of "beneficial ownership" of stock which must be reported by principal officers, directors and ten percent stockholders pursuant to Part 12.2 of the Comptroller's Regulations and Sec. 16(b) of the Securities Act of 1934, the Comptroller has indicated that because of the wide variety of situations involved, the reporting persons may disclaim beneficial ownership of shares they may nevertheless feel compelled to report. The simplest illustration of beneficial ownership is the position of the husband in regard to securities purchased in his wife's name and which he has the power to revert to his own name at any time without payment of other than a nominal consideration.

G. Capital Accounts

The Comptroller has recently held that, through an appropriate amendment to its articles of association, a national bank may provide that its capital consists of a certain number of shares of common stock having a par value of a specific amount each, plus such amounts as may, from time to time, be transferred from the bank's surplus to common stock and irrevocably dedicated to capital by resolution of the bank's board of directors and pursuant to approval by the Comptroller.

H. Shareholders of Record

The Comptroller has expressed the

[34] 12 C.F.R. 11.5(c).
[35] 12 C.F.R. 11.

opinion that Federal law[36] permits a national bank to impose limited conditions upon the transfer of its stock which are reasonably calculated to simplify the work of the bank with respect to stock transfers, voting at shareholder meetings and related matters, and to protect it against fraudulent transfers. Earlier, the Comptroller had ruled that the stock records of a national bank may be closed for a reasonable period to ascertain shareholders for voting purposes, and that, as an alternative, the bank may fix a record date for determining the shareholders entitled to notice of and to vote at any meeting of shareholders. Following these same principles and objectives, the Comptroller more recently ruled that the record date for determining shareholders of record who are entitled to receive a stock dividend must be not more than 30 days prior to the meeting at which the stock dividend proposal is considered and voted upon by the shareholders.

I. Stock Ownership Reports

A ruling has been issued relating to the requirement that officers, directors and holders of ten percent or more of the outstanding stock of a national bank must file reports with the Comptroller's Office whenever such persons buy or sell substantial amounts of the bank's shares.[37] The Comptroller has held that accretions in shareholdings of insiders resulting from stock splits or stock dividends are not transactions requiring the filing of ownership reports by the persons involved.

J. Capital Debentures

The Comptroller has ruled that capital debentures issued by a national bank are eligible for investment by other national banks in amounts up to ten percent of the capital and surplus of the purchasing bank, on the basis of the same types of credit considerations which apply in the case of other corporate bonds which are eligible for national bank investment.

K. Borrowing Limitations

The Comptroller has issued several rulings with respect to indebtedness subject to the limitations contained in 12 U.S.C. 82. Bills payable to the Federal Reserve were held to be within specific exception five to 12 U.S.C. 82. The amounts contained in the Statement of Condition under the caption "accrued expenses, etc.," such as unearned discount, accrued Federal income taxes, accrued interest and other accrued expenses, were held to be unliquidated items not represented by specific evidence of indebtedness; consequently, they are not considered "indebtedness" subject to the limitations of 12 U.S.C. 82.

XV. *Litigation Involving Decisions of the Comptroller*

The issuance of a *new bank charter* by the Comptroller of the Currency is being contested in two new but unrelated cases. In one such case, a national bank and certain other banks, all of which do business in the same vicinity, filed an action against the Comptroller and the organizing national bank challenging the legality, under the Administrative Procedure Act and the Fifth Amendment to the Constitution of the United States, of a charter granted to the defendant bank. The plaintiff banks seek a declaratory judgment that the issuance of a charter was illegal, and they further seek an injunction directing the cancellation of

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[36] 12 U.S.C. 52.

[37] This requirement is set forth in 12 C.F.R. 12.2. As was stated in *The National Banking Review*, 2, September 1964, p. 99: " 'substantial amount' is defined in the regulation as 500 shares or five percent of the total outstanding shares, whichever is the lesser figure in the case of a particular bank."

the charter and requiring the Comptroller to hold a hearing in connection with defendant bank's application for a charter. *Citizens National Bank of Maplewood et al.* v. *James J. Saxon and West Side National Bank*, Civil Action No. 65C 32(1)(D.C.E.D. Mo).

In the other such case, a state-chartered bank filed a suit against the Comptroller challenging the legality under Federal branching law [38] of issuing a charter for a proposed national bank, whose stock was to be 51 percent owned by stockholders and persons associated with an existing national bank located in a nearby community. The plaintiff seeks a declaratory judgment that applicable Federal law,[39] including provisions of the state branching law incorporated therein, prohibits the Comptroller from chartering the proposed national bank, and that the plaintiff bank is entitled to a hearing and other procedural rights in connection with the charter application. The plantiff contends that the new bank application is in reality an application for a branch of the existing national bank. It is further contended that since the state branching law contains location restrictions providing for home-office protection in towns of less than 3,100 persons, since the provisions of this state branching law concerning location restrictions in general and home-office protection in particular are incorporated into Federal branching law,[40] and since the town in question has fewer than 3,100 people and the plaintiff bank maintains its home office in that town, then, applicable Federal law does not permit the establishment of a branch of the defendant national bank whose main office is located in another town.

The plaintiff bank further contends that the Comptroller's failure to hold a hearing at which the plaintiff could examine or cross-examine new bank applicants and exercise certain other procedural steps deprived him of the traditional standards of fairness required by procedural due process and the Administrative Procedure Act. Similar violations are alleged with respect to the regulations concerning national bank organization promulgated by the Comptroller of the Currency on June 9, 1964, and the fact that the Comptroller does not make available findings upon which his decision to issue a new bank charter is based. In yet another argument, the plaintiff contends that applicable state law bars chain banking, and that this provision is applicable to national banks by reason of a provision in the Bank Holding Company Act of 1956,[41] which reserves to a state "such powers and jurisdiction which it now has or may hereafter have with respect to banks, bank holding companies and subsidiaries thereof." *Citizens Bank & Trust Company of Marks, Mississippi* v. *James J. Saxon, Comptroller of the Currency*, Civil Action No. DC 6475 (D.C. N.D. Miss.).[42]

In another case, it is contended that

[38] 12 U.S.C. 36.

[39] 12 U.S.C. 36.

[40] 12 U.S.C. 36.

[41] 12 U.S.C. 1846.

[42] As was noted in *The National Banking Review*, 2, December 1964, pp. 270-271, another case has been filed in recent months in which the issuance of a new bank charter was challenged as being, instead of a new bank, a branch of another national bank the majority of whose stock is owned by the majority shareholders of the new national bank. Although the branch banking question is still pending, the district court has already rejected the contention that the Comptroller is required to hold a hearing prior to his approval of a national bank charter application. *William R. Farris* v. *Indian Hills National Bank, West Omaha National Bank, the Omaha National Bank, a Nebraska Corporation, and James J. Saxon, Comptroller of the Currency of the United States.* Civil No. 02146 (D.C.D.Neb.). A similar decision was reached in another recent case, the *Trust Company of New Jersey* v. *James J. Saxon et al.*, Civil No. 532-63 (D.C.D.N.J. 1963), discussed in *The National Banking Review*, 1, December 1963, p. 270.

the Comptroller's issuance of a new national bank charter would constitute the issuance of a certificate for an illegal branch of a national bank, whose stock is owned by the same bank holding company which owns the stock of the newly organized bank. The Supreme Court of the United States, without ruling on the illegal branch question, has recently held that this action[43] to enjoin the Comptroller's issuance of the new bank charter was an illegal collateral attack on the approval of the Federal Reserve Board pursuant to which the new bank stock was acquired by a bank holding company. Remanding the case to the District Court for the District of Columbia with direction to dismiss the complaint against the Comptroller, the Supreme Court held that the decision of the Federal Reserve Board must be reviewed only in accordance with the provisions of the Bank Holding Company Act of 1956.[44] The Supreme Court therefore also ordered further proceedings in the case pending in the United States Court of Appeals for the Fifth Circuit [45] in which the Federal Reserve Board's approval of the new bank stock acquisition by the holding company is being contested. *James J. Saxon* v. *Bank of New Orleans and Trust Company*, 85 S.Ct. 551 (1965).

Two cases arising out of the Comptroller's allegedly illegal approval of two *branch applications* have been decided by two different courts with diametrically opposite results. The relevant state branching law provides, in part, that "no branch bank shall be established in any city or town in which is located a bank or banks . . . regularly transacting a customary banking business, unless the bank seeking to establish such branch shall take over an existing bank. . . ."[46] In one case, in which four banks, including the applicant national bank, have their home offices located in the same city where the proposed new branch would be located, the court has held that the Comptroller may not, under applicable branching law, authorize the branch at the proposed location. *Commercial Security Bank* v. *James J. Saxon*, Civil Action No. 1815-63 (D.C.D.C. 1964).[47] In the other case, the district court has held that a *de novo* branch could be lawfully established by a national bank in the national bank's home office city inasmuch as a state bank could establish a branch in such city by way of merger. *Walker Bank and Trust Company* v. *James J. Saxon et al.*, Civil Action No. 137-63 (D.C.D. Utah 1964).[48]

Similar issues are raised in four separate actions filed by state-chartered banks against the Comptroller. In each case the plaintiff bank seeks a declaratory judgment that a proposed branch of an applicant national bank would be illegal under applicable branching law and, in each case, the plaintiff bank contends that the

[43] The district court held that the chartering and establishment of the new national bank was in violation of Section 7 of the Bank Holding Company Act of 1956, 12 U.S.C. 1846. *Bank of New Orleans and Trust Company* v. *Saxon*, 211 F. Supp. 576 (D.D.C.1962). The court of appeals, which did not pass on the district court's decision, held that the chartering and establishment of a new national bank owned by a bank holding company would, in the circumstances of the particular case, be in violation of the applicable branching laws. *Whitney National Bank* v. *Bank of New Orleans and Trust Company et al., and James J. Saxon* v. *Bank of New Orleans and Trust Company et al.*, 323 F. 2d 290 (D.C. Cir. 1963). See *The National Banking Review*, 1, September 1963, p. 143 and 1, March 1964, p. 433.

[44] 12 U.S.C. 1841-1848.

[45] *Bank of New Orleans & Trust Co. et al.* v. *Board of Governors of the Federal Reserve System*, No. 19788 (5th Cir.).

[46] See *The National Banking Review*, 1, September 1963, p. 144.

[47] See *The National Banking Review*, 2, December 1964, pp. 272-273.

[48] *Ibid.*

Comptroller's issuance of the contested branch certificate would be illegal because a provision of the state branching statute requires a showing of social and economic need which the Comptroller failed to make, that the Comptroller refused to hold a hearing in violation of the Administrative Procedure Act, that regulations published by the Comptroller on June 9, 1964, fail to give protestants to branch applications guidance on procedures to follow, and that the Comptroller failed to make findings, pursuant to Federal and state branching statutes, showing the grounds upon which he based his approval of the disputed branch application. *Central Bank and Trust Company* v. *James J. Saxon, etc.*, Civil Action No. C-1-D-65 (D.C.M.D.N.C.); *First Citizens Bank and Trust Co.* v. *James J. Saxon, etc.*, Civil Action No. 1663 (D.C.E.D.N.C.); *Commercial and Industrial Bank* v. *James J. Saxon, etc.*, Civil Action No. 723 (D.C.E.D.N.C.); and *Central Bank and Trust Company* v. *James J. Saxon, etc.*, Civil Action No. 20-D-65 (D.C.M.D.N.C.). Other cases pending in Federal courts in the same state which involve all or some of these same issues are *First National Bank of Smithfield, North Carolina* v. *First National Bank of Eastern North Carolina and James J. Saxon, Comptroller of the Currency of the United States*, Civil Action No. 1477 (D.C.E.D.N.C.); *First National Bank of Smithfield, North Carolina* v. *First National Bank of Eastern North Carolina and James J. Saxon, Comptroller of the Currency of the United States*, 232 F. Supp. 725 (E.D.N.C. 1964); *First Citizens Bank and Trust Company* v. *James J. Saxon*, Civil Action 1476 (D.C.E.D.N.C.); *First Citizens Bank & Trust Company* v. *James J. Saxon, Comptroller of the Currency of the United States*, Civil Action No. 1589 (D.C.E.D.N.C.); *Peoples Bank and Trust Company* v. *James J. Saxon, Comptroller of the Currency of the United States*, Civil Action No. 867 (D.C.E.D.N.C.); *Farmers Bank and Trust Company* v. *James J. Saxon, Comptroller of the Currency*, Civil Action No. 16-R-64 (D.C.M.D.N.C.); and *The Farmers Bank & Trust Company and Richmond County Bank* v. *James J. Saxon and Southern National Bank of North Carolina*, Civil Action No. C-142-R-64 (D.C.M.D.N.C.).[49]

A state-chartered bank has filed suit against the Comptroller and a national bank in which it challenges the legality of the issuance of a branch certificate to the defendant bank. The plaintiff seeks both a declaratory judgment that approval and issuance of the branch certificate was in violation of applicable branching law, and an injunction prohibiting operation of the branch. The district court has granted partial summary judgment, and has held that the Comptroller is not required to hold a hearing in connection with branch applications, and that the Comptroller is not bound by a state statute requirement as to necessity or prospects for successful operation of a proposed branch. The only question still pending before the court is whether the proposed branch would be located in an unincorporated village, within the meaning of applicable law, in which no other bank or branch thereof is already located. *The Peoples Bank, Trenton, Michigan* v. *James J. Saxon and Manufacturers National Bank of Detroit, Detroit, Michigan*, Civil Action No. 26166 (D.C.E.D. Mich.).

Two other actions have been recently instituted in Federal courts in the same state as in the preceding case and in which issues similar to those in the preceding case are raised. In one such case, a national bank has filed suit against the

[49] A brief discussion of several of these cases appears in *The National Banking Review*, 1, December 1964, pp. 270-271; 1, June 1964, p. 611; 2, September 1964, p. 101; and 2, December 1964, p. 271.

Comptroller and a national bank challenging the legality of a proposed branch. The plaintiff seeks a declaratory judgment that issuance of the proposed branch certificate would be in violation of applicable branching law,[50] and it also seeks to enjoin the issuance of the branch certificate and the defendant bank's establishment of the proposed branch. The plaintiff claims that the Comptroller's issuance of the proposed branch would be unlawful because the proposed location is not within an unincorporated village, that the home office and branch-protection provision of the state statute was ignored, that the Comptroller failed to make a showing of necessity, and that approval of the application without allowing the plaintiff a formal hearing was in contravention of the Administrative Procedure Act. *The Southern Michigan National Bank of Coldwater* v. *James J. Saxon and First National Bank of Quincy*, Civil Action No. 4948 (D.C.W.D.Mich.).

In the other such case, a state-chartered bank, which is challenging the legality of a proposed branch, is contending that the Comptroller's issuance of the proposed branch would be unlawful because the proposed location is not within an unincorporated village, the home-office and branch-protection provision of the state statute was ignored, the Comptroller failed to make a showing of necessity as required by the state statute, and approval of the application without allowing the plaintiff a hearing or opportunity to cross-examine the applicant bank, or offer evidence in protest, was in contravention of the Administrative Procedure Act and procedural due process guaranteed by the Fourteenth Amendment to the Constitution of the United States. *Security Bank & Wyandotte Savings Bank* v. *James J. Saxon & Manufacturers National Bank of Detroit*, Civil Action No. 26303 (D.C.E.D.Mich.).

[50] 12 U.S.C. 36.

XVI. *Other Litigation*

The United States has prevailed in its action to enjoin the *transfer of funds of a foreign corporation* alleged to be delinquent in its payment of American taxes. The funds in question were on deposit in and payable solely from a foreign branch of a national bank. However, the United States Supreme Court has held that the district court, which entered an injunction against the transfer, upon obtaining personal jurisdiction over the national bank, had the authority to order the bank to freeze funds under its control, irrespective of whether the funds were located or payable in the United States. *United States* v. *First City National Bank*, 85S.Ct. 528 (1965).[51]

In an action brought by a national bank against the owners of the building in which the bank was a tenant, a Federal district court has held that a *sale-leaseback of* its *premises* is *not ultra vires* for a national bank. The court, which concluded that sale-leaseback arrangements have become common, also held that such a transaction for a national bank does not violate the Federal statute[52] relating to ownership of real estate by national banks. Although the plaintiff national bank was seeking to void the sale-leaseback transaction, the court refused to set the transaction aside on the ground that it inured to the personal benefit of the bank's dominant shareholder. The court stated that if the plaintiff were a minority shareholder of the bank, there might have been some ground for afford-

[51] As was noted in *The National Banking Review*, 1, December 1964, p. 272, the United States Court of Appeals for the Second Circuit concluded that the injunction was beyond the jurisdiction of the district court as to any deposits of the foreign corporation held and payable only at a foreign branch of the American bank. *United States* v. *First National City Bank*, 321 2d 14 (2nd Cir. 1963).

[52] 12 U.S.C. 29.

ing relief in such circumstances. *The Perth Amboy National Bank* v. *Irving Brodsky et al., Civ.* 153-385 (D.C.S.D.-N.Y. 1965). It was previously held by the same court in litigation involving the same parties, and arising out of the same sale-leaseback transaction, that cumulated rental payments or operating costs for a 21-year term in no sense fall within the scope of restrictions embodied in the statutory limit [53] on investment in bank premises.[54] *Perth Amboy National Bank* v. *Brodsky*, 207 F. Supp. 785 (S.D.N.Y. 1962).

A Federal district court has held that *statements made by a Federal bank examiner* in his reports and in testifying as a witness in the discharge of official duties and in relation to matters committed to him for determination, were absolutely privileged and that, therefore, no action for libel and slander could be made on account of such testimony or statements. The libel and slander action was brought by a former bank president against the Federal Deposit Insurance Corporation, one of its bank examiners, a bank and the bank president. Holding further that whether or not acts of Federal examiners within the scope of their employment are absolutely privileged is a matter which involves Federal and not state law, the district court noted that a public official guilty of using his powers to vent his spleen upon innocent people should not escape liability for any damage suffered by the innocent, and that if it were possible in practice to confine such complaints to the guilty it would be monstrous to deny recovery. However, the court further noted that the reason for denying recovery is that it is impossible to know whether a claim of libel or slander is well founded until the case has been tried and that to submit all officials, the innocent as well as guilty, to the burden of a trial would dampen the ardor of all but the most resolute or the most irresponsible officials in the discharge of their duties. *James* v. *Federal Deposit Insurance Corporation*, 231 F. Supp. 475 (W.D. La. 1964).

In an action to enjoin the state director of financial institutions from issuing a *permit to organize* several *proposed banks* and to enjoin a bank, its officers, agents, and employees from taking further steps to obtain a permit for the proposed banks, a state court entered judgment adverse to the contesting competitors. The court held that prior to the establishment of the proposed banks, the sale of stock therein, a report of organization of the banks, and a naming of their directors and officers, no actual controversy existed as to whether the establishment of such a bank would result in a violation of the prohibition against branch banking and, therefore, the action was premature. Noting that the state banking act did not prohibit the stockholders, officers, directors, or employees of other banks, as individuals, from joining with other individuals in making an application for permission to organize a state bank, the court held that the state director of financial institutions was not required to withhold his approval of an application for permission to organize proposed banks on the merely speculative basis that, when chartered, the banks might become accessories to a violation of banking laws, including applicable branching laws. *Northtown Bank* v. *Becker*, 195 N.E. 2d 404 (Ill. 1964).

An appeal from the judgment of a state district court has resulted in the vacation of an order of the state bank commissioner granting an application to *establish a branch bank* in an unincorporated area of a county. The state supreme court which held that the record of proceedings before the bank commissioner was inadequate for a court to review and which, therefore, remanded the branch applica-

[53] 12 U.S.C. 371d.

[54] See *The National Banking Review*, 1, September 1963, pp. 146-147.

tion to the bank commissioner for further proceedings, stated that a public hearing should be had in most if not all branch bank applications, particularly where a protest has been filed and there is a possibility of court review. *Zions First Nat. Bank* v. *Taylor,* 390 P. 2d 854 (Utah 1964).

In a declaratory judgment action of possible interest to commercial banks as well as to savings and loan associations, a Federal district court has held that neither the majority shareholders, officers, or directors of a Federally chartered savings and loan association which was to be merged with a state-chartered association, nor the receiving state-chartered association, had power to prohibit any account holder who had pledged his shares on loan or who had shares of more than $10,000, after a certain date, from *sharing* at all *in the distributable surplus* upon dissolution of the Federal association. Holding that all of the Federal savings and loan association shareholders were entitled to a pro rata distribution of such surplus and that all provisions in the merger agreement to the contrary were void, the court also held that any rule or regulation made by the Federal Home Loan Bank Board for winding-up a merger and dissolution of a Federal savings and loan association could not prevail over a specific provision in the association's charter and applicable statute that the distribution of association assets should be made pro rata to all shareholders in the event of dissolution, especially in view of the requirement that the association must be mutual. *Elliott* v. *Federal Home Loan Bank Board,* 223 F. Supp. 578 (S.D. Calif. 1964).

In another suit brought by a savings and loan association against the Federal Home Loan Bank Board to have a challenged transaction judicially determined and to enjoin further Bank Board proceedings, the Court of Appeals for the Ninth Circuit held that the Federal Home Loan Bank Board has the power to enforce common-law fiduciary responsibilities against officers and directors on behalf of members of the association, and that these members were adequately represented by the Board and were, therefore, precluded from intervening as a matter of right. *Reich* v. *Webb,* 366 F. 2d 153 (9th Cir. 1964).

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Selected Statistical Data*

Table No.	*Title of Table*	*Page*
1	Number of national banks and banking offices, by states, December 31, 1964	442
2	Status of applications for national bank charters and charters issued, calendar 1964	443
3	National bank charter applications, and charters issued, by states, January 1-December 31, 1964; received, approved, rejected, abandoned, and pending as of December 31, 1964	444
4	De novo branch applications of national banks, by states, January 1-December 31, 1964; received, approved, rejected, abandoned, and pending as of December 31, 1964	445
5	Branches of national banks: in operation December 31, 1963; opened for business, discontinued, or consolidated, January 1-December 31, 1964; and branches in operation December 31, 1964	446
6	Branches of national banks opened for business, by community size and size of bank, October 1-December 31, 1964, and calendar 1964	447
7	Mergers, October 1-December 31, 1964, and calendar 1964	448

* Data from the December 31, 1964, Reports of Condition of national banks were not available at the time this issue of *The National Banking Review* went to press. They will be included in the June 1965 issue of the *Review*.

Table 1.—Number of national banks and banking offices, by states, December 31, 1964

State	National banks			Number of branches of national banks	Number of national banking‡ offices
	Total	Unit	With branches		
United States†	4,773	3,537	1,236	7,759	12,732
Alabama	80	56	24	106	186
Alaska	5	0	5	38	43
Arizona	4	1	3	166	170
Arkansas	63	40	23	47	110
California	90	57	33	1,643	1,733
Colorado	115	115	0	0	115
Connecticut	27	12	15	152	179
Delaware	5	4	1	3	8
District of Columbia	8	1	7	45	53
Florida	187	187	0	0	187
Georgia	55	32	23	100	155
Hawaii	2	0	2	39	41
Idaho	9	4	5	90	99
Illinois	410	410	0	0	410
Indiana	124	63	61	244	368
Iowa	101	80	21	23	124
Kansas	169	145	24	24	193
Kentucky	82	43	39	110	192
Louisiana	47	17	30	126	173
Maine	22	8	14	62	84
Maryland	49	24	25	171	220
Massachusetts	93	34	59	303	396
Michigan	96	44	52	355	451
Minnesota	193	191	2	6	199
Mississippi	31	8	23	42	73
Missouri	91	77	14	14	105
Montana	48	48	0	0	48
Nebraska	125	109	16	16	141
Nevada	3	1	2	30	33
New Hampshire	50	35	15	17	67
New Jersey	146	52	94	390	536
New Mexico	33	15	18	46	79
New York	203	110	93	755	958
North Carolina	31	9	22	248	279
North Dakota	41	36	5	5	46
Ohio	221	102	119	465	686
Oklahoma	222	199	23	23	245
Oregon	11	6	5	200	211
Pennsylvania	387	242	145	724	1,111
Rhode Island	4	0	4	52	56
South Carolina	25	6	19	161	186
South Dakota	33	28	5	34	67
Tennessee	75	32	43	179	254
Texas	539§	539	0	0	539
Utah	12	8	4	53	65
Vermont	28	19	9	27	55
Virginia	123Δ	61	62	275	398
Washington	28	13	15	324	352
West Virginia	79	79	0	0	79
Wisconsin	109	97	12	24	133
Wyoming	38	38	0	0	38
Virgin Islands	1	0	1	2	3
D.C. – all*	15	2	13	78	93

* Includes national and nonnational banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.

† Includes Virgin Islands.

‡ Number of banking offices is the sum of total national banks and number of branches of national banks.

§ Includes Deposit Insurance National Bank of Dell City, Dell City, Texas—organized under Section 11 of the Federal Deposit Insurance Act—to operate no longer than for a two year period.

Δ Includes Deposit Insurance National Bank of Newport News, Newport News, Virginia—organized under Section 11 of the Federal Deposit Insurance Act—to operate no longer than for a two year period.

Table 2.—Status of applications for national bank charters and charters issued, calendar 1964

Applications carried over from 1963	70
4—Conversions	
66—Primary	
70	
Applications received 1964	468
30—Conversions	
438—Primary	
468	
	538
Applications approved 1964	185
29—Conversions	
156—Primary	
185	
Applications rejected 1964	242
1—Conversion	
241—Primary	
242	
Applications abandoned 1964	30
3—Conversions	
27—Primary	
30	
Applications pending, December 31, 1964	81
1—Conversion	
80—Primary	
81	
	538

* * * * * * * * *

New national banks chartered 1964	232
27—Conversions	
203—Primary	
2—Deposit Insurance Corporation National Banks	
232	

Table 3.—National bank charter applications,* and charters issued,* by states, January 1 - December 31, 1964; received, approved, rejected, abandoned, and pending as of December 31, 1964

State	Received‡	Approved	Rejected	Abandoned	Pending Dec. 31, 1964	Charters Issued
United States†	538	185	242	30	81	232
Alabama	16	10	5	0	1	8
Alaska	0	0	0	0	0	0
Arizona	0	0	0	0	0	1
Arkansas	9	3	2	1	3	3
California	105	30	52	5	18	38
Colorado	29	9	19	0	1	11
Connecticut	12	3	3	0	6	4
Delaware	0	0	0	0	0	0
District of Columbia	3	1	1	1	0	1
Florida	70	15	38	10	7	26
Georgia	9	2	5	2	0	1
Hawaii	2	0	0	0	2	0
Idaho	0	0	0	0	0	0
Illinois	21	12	5	1	3	9
Indiana	2	2	0	0	0	1
Iowa	3	1	0	0	2	1
Kansas	4	1	3	0	0	2
Kentucky	0	0	0	0	0	0
Louisiana	4	1	3	0	0	3
Maine	0	0	0	0	0	0
Maryland	6	2	2	0	2	4
Massachusetts	4	2	0	0	2	1
Michigan	12	7	1	0	4	8
Minnesota	9	1	5	2	1	4
Mississippi	6	4	1	0	1	2
Missouri	22	9	8	2	3	9
Montana	7	2	4	0	1	1
Nebraska	4	3	1	0	0	4
Nevada	6	0	4	1	1	0
New Hampshire	1	1	0	0	0	0
New Jersey	14	10	3	0	1	7
New Mexico	5	3	1	0	1	4
New York	12	4	6	0	2	5
North Carolina	0	0	0	0	0	0
North Dakota	3	2	0	1	0	3
Ohio	12	7	1	0	4	4
Oklahoma	29	2	23	2	2	11
Oregon	1	1	0	0	0	0
Pennsylvania	3	1	2	0	0	2
Rhode Island	0	0	0	0	0	0
South Carolina	4	0	4	0	0	0
South Dakota	1	0	1	0	0	0
Tennessee	3	1	0	0	2	1
Texas	46	11	28	1	6	25§
Utah	5	2	2	0	1	2
Vermont	0	0	0	0	0	0
Virginia	7	3	3	1	0	9§
Washington	10	6	4	0	0	5
West Virginia	3	2	1	0	0	3
Wisconsin	4	4	0	0	0	5
Wyoming	9	5	1	0	3	4
Virgin Islands	0	0	0	0	0	0
Puerto Rico	1	0	0	0	1	0

* Includes conversions.
† Includes Virgin Islands and Puerto Rico.
‡ Includes applications pending as of December 31, 1963.
§ Includes one Deposit Insurance Corporation national bank.

Table 4.—De novo branch applications of national banks, by states, January 1 - December 31, 1964; received, approved, rejected, abandoned, and pending as of December 31, 1964

State	Received‡	Approved	Rejected	Abandoned	Pending Dec. 31, 1964
United States†	1,026	670	142	50	164
Alabama	19	13	2	0	4
Alaska	1	0	0	1	0
Arizona	16	11	2	0	3
Arkansas	12	11	1	0	0
California	191	107	49	7	28
Colorado	0	0	0	0	0
Connecticut	22	15	0	1	6
Delaware	1	1	0	0	0
District of Columbia	6	4	1	0	1
Florida	0	0	0	0	0
Georgia	11	9	0	2	0
Hawaii	0	0	0	0	0
Idaho	6	2	3	0	1
Illinois	0	0	0	0	0
Indiana	14	13	0	0	1
Iowa	15	11	0	2	2
Kansas	1	0	0	1	0
Kentucky	6	5	0	0	1
Louisiana	7	5	0	0	2
Maine	3	1	0	0	2
Maryland	37	19	11	1	6
Massachusetts	32	25	2	0	5
Michigan	77	47	9	3	18
Minnesota	0	0	0	0	0
Mississippi	9	7	0	1	1
Missouri	3	3	0	0	0
Montana	0	0	0	0	0
Nebraska	1	1	0	0	0
Nevada	3	2	0	0	1
New Hampshire	12	9	1	0	2
New Jersey	42	25	5	4	8
New Mexico	5	5	0	0	0
New York	96	54	13	13	16
North Carolina	29	19	1	2	7
North Dakota	4	1	1	1	1
Ohio	71	59	1	1	10
Oklahoma	4	4	0	0	0
Oregon	23	16	6	0	1
Pennsylvania	87	53	13	5	16
Rhode Island	2	1	0	0	1
South Carolina	18	14	0	0	4
South Dakota	2	1	1	0	0
Tennessee	26	24	0	1	1
Texas	0	0	0	0	0
Utah	11	7	1	0	3
Vermont	7	4	0	0	3
Virginia	68	44	13	4	7
Washington	26	18	6	0	2
West Virginia	0	0	0	0	0
Wisconsin	0	0	0	0	0
Wyoming	0	0	0	0	0
Virgin Islands	0	0	0	0	0
D.C. – all*	10	7	1	0	2

* Includes national and nonnational banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.

† Includes Virgin Islands.

‡ Includes applications pending as of December 31, 1963.

Table 5.—Branches of national banks: in operation December 31, 1963; opened for business, discontinued, or consolidated, January 1 - December 31, 1964; and branches in operation December 31, 1964

State	Branches in operation Dec. 31, 1963	Branches opened for business Jan. 1-Dec. 31, 1964	Existing branches discontinued or consolidated Jan. 1-Dec. 31, 1964	Branches in operation Dec. 31, 1964
United States†	7,227‡	782	50	7,959
Alabama	97‡	9	0	106
Alaska	38	0	0	38
Arizona	154	12	0	166
Arkansas	35	12	0	47
California	1,545‡	102	4	1,643
Colorado	0	0	0	0
Connecticut	132	20	0	152
Delaware	3	0	0	3
District of Columbia	38‡	7	0	45
Florida	0	0	0	0
Georgia	97‡	6	3	100
Hawaii	38	1	0	39
Idaho	84	6	0	90
Illinois	0	0	0	0
Indiana	218	26	0	244
Iowa	19	4	0	23
Kansas	24	0	0	24
Kentucky	102‡	9	1	110
Louisiana	118	9	1	126
Maine	61	1	0	62
Maryland	156‡	19	4	171
Massachusetts	271	33	1	303
Michigan	303‡	53	1	355
Minnesota	6	0	0	6
Mississippi	36	6	0	42
Missouri	14‡	2	2	14
Montana	0	0	0	0
Nebraska	17	0	1	16
Nevada	28	2	0	30
New Hampshire	2	15	0	17
New Jersey	344‡	48	2	390
New Mexico	40	8	2	46
New York	689‡	74	8	755
North Carolina	232‡	20	4	248
North Dakota	3	2	0	5
Ohio	427‡	39	1	465
Oklahoma	21	2	0	23
Oregon	191‡	9	0	200
Pennsylvania	619‡	111	6	724
Rhode Island	52	1	1	52
South Carolina	145‡	17	1	161
South Dakota	34	0	0	34
Tennessee	161‡	20	2	179
Texas	0	0	0	0
Utah	48	5	0	53
Vermont	22	6	1	27
Virginia	243	36	4	275
Washington	296	28	0	324
West Virginia	0	0	0	0
Wisconsin	22	2	0	24
Wyoming	0	0	0	0
Virgin Islands	2	0	0	2
D.C. – all*	70	8	0	78

* Includes national and nonnational banks in the District of Columbia, all of which are supervised by the Comptroller of the Currency.
† Includes Virgin Islands.
‡ Revised.

Table 6.—Branches of national banks opened for business, by community size and size of bank, October 1 - December 31, 1964, and calendar 1964

Category	October 1-December 31, 1964	January 1-December 31, 1964
In cities with population:		
less than 5,000	52	190
5,000 to 24,900	81	284
25,000 to 49,900	33	94
50,000 to 99,900	18	58
100,000 to 249,900	12	40
250,000 to 499,900	7	30
500,000 to 1,000,000	12	44
over 1,000,000	27	42
TOTAL	242	782
By banks with total resources (In millions of dollars)		
Less than $ 10.0	30	122
10.0 to 24.9	36	117
25.0 to 49.9	28	80
50.0 to 99.9	14	64
100.0 to 999.9	93	259
over 1,000	41	140
TOTAL	242	782

Table 7.—Mergers,* October 1 - December 31, 1964, and calendar 1964

Applications carried over from:			
September 30, 1964	14	1963	14
Applications received:			
October 1 - December 31, 1964	23	1964	92
Applications approved:			
October 1 - December 31, 1964	22	1964	88
Applications rejected by shareholders:			
October 1 - December 31, 1964	0	1964	1
Applications denied:			
October 1 - December 31, 1964	0	1964	0
Applications withdrawn:			
October 1 - December 31, 1964	0	1964	2
Applications pending:			
December 31, 1964	15	December 31, 1964	15
Transactions completed			
October 1 - December 31, 1964		1964	
Mergers	23	Mergers	69
Consolidations	2	Consolidations	8
Purchase of Assets	2	Purchase of Assets	14
Total	27	Total	91

The aggregate total of capital stock and capital accounts for the certificates issued are as follows:

	October 1 - December 31, 1964		
	Charter or purchasing bank	Merg., consol. or selling bank	Combined
Capital stock	$ 99,577,079.50	$ 9,292,600	$110,228,379.50
Capital accounts	376,294,500.50	31,851,226	405,800,337.50
	1964		
	Charter or purchasing bank	Merg., consol. or selling bank	Combined
Capital stock	$ 360,421,819.50	$ 35,632,100	$ 400,053,669.50
Capital accounts	1,255,382,842.50	128,115,091	1,370,742,352.50

* Includes mergers, consolidations and purchase and sale transactions, where the emerging bank is a national bank.

BOOK REVIEWS

Money and Credit: Impact and Control. By JAMES S. DUESENBERRY, Foundations of Modern Economics Series, ed. by Otto Eckstein. Prentice-Hall, Inc., Englewood Cliffs, N. J., 1964, VIII, 117 pp., $1.50.

A new series of books has recently been introduced under the editorship of Otto Eckstein. "Designed to be the material for the basic one-year college course," the series intends to cover the range of economics through separate studies written by specialists in their respective fields. One of the nine books, to be reviewed here, initiates the students into the mysteries of money and monetary problems.

Observations drawn from a sample of one (my wife) agree with my own judgment that the material is skillfully developed and well arranged in clearly organized sections. Moreover, it reads smoothly and will probably capture the interest of students. The chapters on "The Nature and Evolution of Money" and "The Development of Money and Banking" cover the basic groundwork and present the essential points, as do the chapters describing commercial banks and major financial institutions. The author discharges his task in a pleasantly relaxed manner and manages to add interesting and perceptive detail to the usually dull discussion. The book clearly deserves high grades for excellent exposition and skill in attracting the interest of novices.

Perhaps I should end my review at this point and maintain my semicordial relations with the economics profession. However, the following comments proceed on the assumption that content is no less important than style.

The author persuasively argues in the more descriptive chapters "that and how money matters." There seem to be no "buts" and "ifs." Money is important and monetary arrangements deserve the careful attention of public policy.

A subtle change occurs, however, in the role of money when income analysis is more explicitly developed. The formal structure of the analysis explaining the links between income and money follows a well-established standard pattern. There is (1) an income-expenditure equation, (2) a consumption function with arguments consisting of income, interest rates, and possibly some tax parameter, (3) an investment function of similar form, and (4) a demand for money of the standard Keynesian type. In the context of this structure, effective monetary policy requires that the interest elasticities of spending functions not be totally overwhelmed by the interest elasticity of money demand. Money still remains relevant, but with "qualifications" and "limitations." Special cases of interest elasticities of investment and of money demand which may conceivably make monetary policy impotent creep into the scene. The reader is nevertheless reassured that the Federal Reserve has powerful instruments for steering the economy, but with an important exception. The author asserts that during the nineteen-thirties the unusual interest elasticities created a monetary impasse (p. 97) and monetary policy became powerless. It would be quite unreasonable to find fault with the author for omitting a thorough analysis in this textbook substantiating this claim. More serious is the fact that the author's assertion regarding the impotence of monetary policy in the Great Depression has never been established. There simply is no systematic evidence substantiating his contentions!

One should also note that this income analysis is presented to the reader in a manner indicating that it has definite and practical relevance to the analysis of real world phenomena. There is an unmistakably categorical flavor surrounding Professor Duesenberry's discussion, which is most admirable. Because the author presumably does not intend to erect a straw man for his very own income theory, it must follow that the critical examinations of alternative macro-theories published by Friedman-Meiselman and Brunner-Balbach *do* have bearing on theories he seriously advances, at least to students. These searching evaluations uncovered little evidence to support the standard income models. (See M. Friedman and D. Meiselman, "The Relative Stability of

Monetary Velocity and the Investment Multiplier in the United States, 1897-1958," *Stabilization Policies*, Prentice-Hall, for Commission on Money and Credit, 1963; and "An Evaluation of Alternative Monetary Theories," Karl Brunner and Anatole Balbach, *Proceedings*, Western Economic Association, 1960.) Critics of these studies who assert that the income models appraised are straw men that no one seriously proposes will find no comfort from the Duesenberry analysis. However, Professor Duesenberry is certainly obliged to justify his preferred theory in the light of the evidence from these studies.

Juxtaposition of the standard income theory with the "quantity theory" heightens the sense of usefulness and relevance assigned to the standard income theory. The "quantity theory" is quickly dismissed by the author. After all, velocity is not constant. We may easily grant this and still emphasize that this fact does not require the rejection of the "quantity theory," because the alternative to it may be an even worse theory. The author's decision may be quite correct but his argument certainly breaks down. The same argument could be used to reject his favored theory. This theory seems to assert that the multiplier associated with government expenditure is highly stable. We have found, however, a remarkable instability of this animal over many years. Should we *therefore* accept the "quantity theory"?

I grant that the standard formulation of the "quantity theory" has too small a range of relevant application to be very informative or even useful for many macro problems. The author's reference to an analysis incorporating a variable velocity appears, therefore, most intriguing. One might construct a "quantity theory" which explains income in terms of the money stock and a floating velocity. Yet we are assured by the author that "this approach" will not work. We are told that if changes in M or GNP cause changes in V, then movements of V do not cause movements in GNP. This argument is quite amazing, and we may apply it to the author's income model: If changes in GNP cause changes in consumption (C) and investment (I), it follows that movements in C and I do not cause changes in GNP. This is, of course, foolish and so we can safely assume that the author's comments must be interpreted as an elliptical criticism of a "quantity-theory" velocity explanation from the point of view of his income model. The criticism makes sense provided that we assume the author's income model to be true and the alternative approaches misconceived. But this very assumption appears quite dubious and there is little evidence supporting it.

The same pattern also applies to the author's discussion within a more narrowly circumscribed range of monetary phenomena. The demand for money is based on the traditional transactions and speculative motives for holding money. Transactions balances are said to emerge because receipts and payments do not mesh exactly. These balances are asserted to be roughly proportional to income. Speculative balances seem to be mostly small. One great advantage of this "motivational analysis" is its psychological effect; it appears to say something without straining either reader or writer. Would it change anything (what precisely?) if some unenlightened villain asserted that receipts and payments do not mesh because people hold money balances? We also note that the author's categorical assurance to the innocent reader regarding transaction balances and speculative balances lacks supporting evidence. In a study involving a comparative assessment of eight alternative money demand hypotheses, the demand function described by the author fails most miserably. (See Karl Brunner and Allan H. Meltzer, "Predicting Velocity: Implications for Theory and Policy," *Journal of Finance*, May 1963.)

On the side of money supply, we find the usual textbook material composed of balance-sheet examples of credit-expansion and money creation. This is perfectly fine. It is presented, however, with an air of categorical assurance and an absence of any supporting evidence. This holds most particularly for the description of the system's response to changes in reserves. The upper expansion-limit is seriously presented as a good approximation to the actual state of the world (p. 37 and p. 35). Once again, the omission of substantiating analysis is appropriate only for such a book. Less appropriate

is the perennial repetition of statements unsupported by analysis and evidence.

The disregard of substantive analysis becomes crucial in the section dealing with Federal Reserve policy. The reader is shown a performance of well-designed actions. The picture is fascinating, but alas, merely a pleasing sugar pill. I have elsewhere shown the systematic discrepancy between the Federal Reserve's actual and asserted policy. In particular, actual policy pursued a deflationary direction in the recessions of 1948/49 and 1958/54. The same applies for about half the downswing in 1957/58 and for several months beyond the peak in 1960. And, most intriguingly, the Federal Reserve's Annual Report covering 1963 repeatedly records a shift to a "less easy" policy when the "level of expansionary policy" measured in a meaningful way actually accelerated and moved up to ranges in 1964 not observed since the end of World War II!

I contend that there exists an explanation for this discrepancy. Both analysis and evidence for the glaring difference between intent and deed have been published, for example, in this reviewer's testimony at hearings on "The Federal Reserve System After Fifty Years" before the Subcommittee on Domestic Finance of the House Banking and Currency Committee. (See Volume 2, pp. 1047-1061). This analysis may be quite faulty, and Professor Duesenberry is invited to examine it very critically. Whether he accepts or rejects the analysis and the evidence is not important compared to the hope that it may induce him to replace bland policy stereotypes by a harder look at the facts in the context of an explicitly stated analysis.

The mixture of casual remarks and unsupported allusions reaches an appropriate conclusion: "With the development of modern central banking and with such safety devices as deposit insurance, we can be fairly sure that money will not cause trouble just because we do not know how to control it. The technical problems of controlling the money supply are largely solved." It is precisely because the Federal Reserve did not know how to control the money supply that serious problems arose! There is, moreover, precious little evidence that the policy-makers as a group are convinced, as the author is, that "money really matters." And as to the "technical problems of controlling the money supply," the existence of policy instruments is not a sufficient condition for effective control. The controller also needs to know the structure of the process being controlled. And this problem is still to be faced by the Federal Reserve authorities, and maybe even in textbooks.

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The Role of Direct and Indirect Taxes in the Federal Revenue System. A Conference Report of the National Bureau of Economic Research and the Brookings Institution, Princeton: Princeton University Press, 1964, pp. xii + 321. $7.50.

This volume is a report of a 1963 National Bureau of Economic Research and Brookings Institution conference which was called for the purpose of assessing the impact, on various aspects of economic life, of a shift toward greater federal use of indirect taxation. The report is not merely another look at an old bundle of controversies, but is an interesting and useful document. It is useful both to the specialist in public finance for its detailed and often controversial analyses and its compilation of foreign tax data, and to those with a more casual interest in the economics of taxation for casting well-deserved doubts upon several popularly held views.

Among these views is the notion that an unambiguous distinction can be made between direct and indirect taxes. There seemed to be general agreement among the conferees that such rigid classifications should be avoided, because a particular distinction between taxes which is useful in analyzing one set of problems may be of little value in answering other questions.

Also questioned was the view that Western European countries rely more heavily than the United States upon indirect taxes, and that this situation is responsible for post-war European economic growth. This questioning also casts doubt on the corollary proposition that a greater United States reli-

ance on indirect taxation would solve our balance of payments problems and increase our rate of economic growth.

Each of the four major papers deals with a different aspect of the effect of a change in our direct-indirect tax mix. In his paper on "Taxation, Resource Allocation and Welfare," Harberger disputes the view that direct taxation is necessarily more neutral than indirect taxation because, since the income tax affects the labor-leisure choice, either type of tax will distort consumer choices. A preference for one or the other should be based on a comparison of their welfare costs, or excess burdens. Harberger makes such a comparison, concluding that the welfare cost of a non-general excise tax on goods with relatively high demand elasticities will probably exceed that of an income tax yielding the same revenue.

He then discusses the non-neutrality of income taxation with respect to saving, and concludes that the influences of taxation are greater on the allocation of capital among its users than on the total size of the capital stock, although both effects are present. He finally concludes that the effects of taxation on the labor-leisure choice has only negligible influence on the rate of economic growth, and that the effects of taxation on the savings decision may affect economic growth by one or two-tenths of a percentage point.

Professors Musgrave and Richman discuss the effects on domestic resource allocation and on international trade and capital flows of a shift from a corporate-profits tax to a value-added tax. The results vary, depending on whether or not the profits tax is shifted in the short run, and on whether the value-added tax is of the income or consumption variety. With respect to domestic resource allocation, a consumption type value-added tax replacing a profits tax or an income type value-added tax replacing a non-shifted profits tax will increase incentives to invest.

With respect to international allocation effects, the results depend, in addition, on the assumptions regarding resource mobility. All of the possible combinations are explored. Some result in a distortion of capital flows, and others in shifts in commodity trade. Although they see a number of tax arrangements which can benefit the United States balance of payments, the authors do not recommend them. Such measures, they feel, would run counter to our longer run policy objectives of an unencumbered international flow of goods and resources.

Douglas Eldridge has contributed his views on the "Equity, Administration and Compliance, and Intergovernmental Fiscal Aspects" of a change in the tax structure toward greater use of indirect taxation. Because of the difficulty of allocating sales or excise tax burdens among income classes, the author feels that greater reliance on such taxes must result in the use of cruder and less reliable tools for achieving tax equity.

Eldridge finds little difference in the costs of administering two truly broad based taxes, one on income and one on consumption. However, costs rise with each reduction in the generality of the base, and since a shift to indirect taxation may be expected to involve departures from generality, such a shift would be unlikely to offer administrative or compliance advantages.

In his discussion of the intergovernmental fiscal aspects of the problem, Eldridge finds that increased Federal reliance on indirect taxation would make the financing of state and local needs increasingly difficult. In addition, the relative decline of the Federal income tax would "lessen the significance of tax deductibility as an intergovernmental tax coordinating device."

The final paper, by Otto Eckstein, is a comparative study of European and United States tax structures and their implications for economic growth. He finds that the direct-indirect tax mix and the ratios of direct taxes to GNP are not very different between the United States and Western Europe, if all levels of government are considered and if direct taxes are defined to include more than just income taxes.

Eckstein notes the higher ratios of non-residential investment-to-GNP in the faster-growing European countries, but does not see that the tax system can necessarily generate these high levels of investment. He cites several advantages which might result from a switch to value-added taxation. Among these are more efficient allocation of investment, the taxation of a broader range of business organizations, lower marginal tax rates, and greater United States exports.

Overriding these advantages, however, are the negative effects which such a switch might have on employment and the efficiency with which the tax system operates as an automatic stabilizer.

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Anticipations and Purchases: An Analysis of Consumer Behavior. By F. THOMAS JUSTER. Princeton: Princeton University Press for the National Bureau of Economic Research, Inc., 1964, xviii + 303 pp., $6.50.

Juster's study is concerned with research methods and types of data which might be used to predict future consumer purchases. His work is of fundamental importance for this area of inquiry: the results suggest that most past studies predicting consumption were poorly designed and did not attempt to gather information which would most be of value in making the desired predictions. This indicates that a shift is required in the focus of future consumer demand prediction studies. The study suggests new theoretical and empirical questions.

Juster's concern is with surveys in which a series of questions is asked of consumers about their present economic status and their future plans and attitudes. From the answers given, an attempt is made to predict future consumption. He concludes that the most illuminating questions are those which ask a consumer directly whether or not he intends to purchase particular items within a specified time period. But the relationship between the proportion of people who say that they intend to buy an item, and those who actually do buy it, seems not to be the obvious one. The proportion of people who say they intend to buy an item is not the best predictor of the proportion of people who do buy it.

Juster suggests that the answer given to a question about future intentions is really a statement of some probability of future purchase. Each consumer will have some (subjective) probability of purchasing a particular good within a given time period. This probability may be near zero for those who are almost certain they will not purchase the good, and near unity for those who feel certain that they will purchase the good. Further, this distribution of probabilities among a group of consumers appears to be continuous rather than dichotomous. If this picture is correct, the answer the consumer gives to the question, "Do you intend to purchase _____ within the next _____ months?", is merely a reflection of the subjective probability he holds about the possibility of such a purchase. If the probability of purchase is high enough, he will answer yes; if not, the answer will be no.

The answers to the question will yield only the proportion of people in the sample who had a subjective probability high enough to warrant a "yes" answer. Some of those below this critical probability point will, in fact, purchase the item in question. Even though they answered "no" to the question, they did not really mean that they would certainly not purchase the item. They meant that their subjective probability of such a purchase, while above zero, was not high enough to induce them to answer "yes." Conversely, purchases will not be made by every person who answered "yes"; only some of them will buy. The most important piece of information which is needed for prediction, then, is the mean or expected value of the distribution of consumer probabilities, not the proportion who have above a certain probability. The implication for empirical studies of consumers' future purchases is that the questions asked and data collected should aim at estimating the mean of this distribution.

Juster does some simple tests of this model, describing the relation between consumer reaction to intention questions and subsequent purchase behavior. The data were obtained from a large survey and follow-up questionnaires sent to over 20,000 subscribers to *Consumer Reports*. The main test of the model concerns three empirical implications which can be drawn involving the interrelationships among the fraction of the population which answers "yes" to the intention question, the fraction of the yes-answerers who actually buy, and the fraction of the no-answerers who buy. The data do

not contradict the general implications of the model.

Further empirical work shows quite clearly that answers to the intention question are superior to other types of information in predicting consumer purchases. In particular, Juster investigated: (1) variables giving initial objective economic information about the family unit; (2) some index of the general optimism or pessimism about the economic future (similar to the attitudinal information collected by the University of Michigan Survey Research Center); and (3) a measure of the unforeseen events which occurred between the time the initial intention to buy or not to buy was stated, and the time of the follow-up survey. Neither the initial objective variables, nor the attitudinal variables (except in a very few cases of extreme optimism or pessimism), provided much explanation of the final purchases. Most of the possible explanation came from answers to the intention question, plus results of the events intervening between the statement of intention and actual purchase or non-purchase. This is interpreted as meaning that the consumer utility computations are vital in the process of determining a purchase, and it is the consumer who must personally do the computing. The intention variable is essentially the results of such a computation. The initial objective and attitudinal variables are some of the raw materials which go into the input part of the computer. At this stage of our knowledge, we are better off using the results of the computers than in trying to reproduce the computation process.

Juster does not attempt to estimate any complete probability distributions of consumer intentions. Perhaps the data will not support such refinement. He suggests (p. 59) that he does not do so because he does not know what the "true" function is, and he thus has no criterion for choosing among several functions which may provide a reasonably good fit. While true, this situation has seldom deterred people, and need not deter them, from producing useful and suggestive empirical results. Indeed, Juster himself has assumed the existence of several different forms of probability distributions in the many statistical-significance tests he has performed throughout the book.

There may be another explanation for the failure to relate the empirical work more closely to the model. At the risk of prodding horses which many people think moribund, I would like to suggest that the study appears to have proceeded in an inductive manner, developing a model after having gathered all the data, instead of deducing from a model the types of data which should be gathered. (This cannot be certain, of course, in the absence of a statement from the author.) It is a somewhat less satisfactory piece of research for having done this. The model is not well developed; nothing about the implication of various forms of the probability distribution for consumer behavior or future purchases has been discussed, nor is there a discussion of the types of questions which should be asked or data which should be gathered to determine empirically the form of the distribution. Juster says (p. 3) that he is interested only in prediction, not explanation of how the intention variables are related to more fundamental consumer behavior rules. This may be satisfactory (and nothing in present fundamental consumer theory suggests that it would provide a useful theoretical base), but his (rightful) claim to an original contribution rests on an explanation of the behavior of the intention variable. It is this latter explanation for which a richer theory could probably be developed. It would have immediate implications for the design of empirical studies and questionnaires. In fact, one is left with the feeling that the CU survey was not designed with the model in mind; if it had been, more direct tests of the model would have been possible.

This question of emphasis should not obscure the fact that Juster contributes a significant piece of research. Many detailed relations were investigated which are not described in this review. His results cannot be ignored by those involved with empirical studies designed to predict consumer behavior. Neither should they be ignored by the theorist who is attempting to describe more realistically and completely the behavior of consumers. The probabilistic nature of consumer behavior has been explored very little, either empirically or theoretically.

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